

(FILE 'HOME' ENTERED AT 10:26:15 ON 07 MAR 2003)

FILE 'REGISTRY' ENTERED AT 10:26:37 ON 07 MAR 2003

```

      E "POLYOLEFIN"/CN
      E "POLYOLEFINS"/CN
      E "POLYURETHANE"/CN
      E "POLYURETHANES"/CN
      E "CELLULOSICS"/CN
      E "POLYESTER"/CN
      E "POLYESTERS"/CN
      E "POLYAMIDE"/CN
      E "POLYAMIDES"/CN
L1      1 S E3
      E "POLY(HEXAMETHYLENE ISOPHTHALAMIDE/TEREPHTHALAMIDE)"/CN
      E "POLY(ETHYLENE TEREPHTHALATE-CO-P-OXYBENZOATE)"/CN
      E "POLYETHYLENE TEREPHTHALATE CO P OXYBENZOATE"/CN
      E "POLY(HYDROXY AMIDE ETHERS)"/CN
      E "POLYHYDROXY AMIDE ETHER"/CN
      E "POLYHYDROXYAMIDE ETHER"/CN
      E "ACRYLONITRILE/STYRENE COPOLYMER"/CN
      E "ACRYLONITRILE-STYRENE COPOLYMER"/CN
L2      1 S E3
      E "RUBBER MODIFIED ACRYLONITRILE-ACRYLATE COPOLYMER"/CN
      E "RUBBER-MODIFIED ACRYLONITRILE-ACRYLATE COPOLYMER"/CN
      E "POLY(METHYL METHACRYLATE)"/CN
L3      1 S E3
      E "LIQUID CRYSTAL POLYMER"/CN
      E "POLY(PHENYLENE SULFIDE)"/CN
L4      2 S E3
      E "POLYSTYRENES"/CN
      E "POLYCARBONATE"/CN
      E "POLYCARBONATES"/CN
L5      1 S E3
      E "POLY(VINYL ALCOHOLS)"/CN
      E "POLY(VINYL ALCOHOL)"/CN
L6      1 S E3
      E "POLY(ETHYLENE-VINYL ALCOHOL)"/CN
      E "POLYETHYLENE VINYL ALCOHOL"/CN
      E "ALIPHATIC POLYKETONES"/CN
      E "POLYSULFONES"/CN
L7      3 S E4 OR E5 OR E6 OR E7
      E "POLY(ESTER-SULFONE)"/CN
      E "POLYESTER SULFONE"/CN
      E "POLY(URETHANE-SULFONE)"/CN
      E "POLYURETHANE SULFONE"/CN
      E "POLY(CARBONATE-SULFONE)"/CN
      E "POLY(CARBONATE-SULFONE)"/CN
      E "POLYCARBONATE SULFONE"/CN
      E "POLY(3-HYDROXYOXETANE)"/CN
      E "POLY(3 HYDROXYOXETANE)/CN
      E "POLY(AMINO ETHERS)"/CN
      E "POLY(VINYLLIDENE CHLORIDE)"/CN
L8      1 S E4
      E "POLY(VINYL FLUORIDE)"/CN
L9      1 S E3
      E "POLY(VINYLLIDENE FLUORIDE)"/CN
L10     1 S E3
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L11           E "POLY(CHLOROTRIFLUOROETHYLENE)"/CN  
               1 S E3  
               E "ETHYL CELLULOSE"/CN  
               E "CELLULOSE NITRATE"/CN  
               E "CELLULOSE ACETATE BUTYRATE"/CN  
               E "METHYL CELLULOSE"/CN  
               E "POLY(ETHYLENE TEREPHTHALATE)"/CN  
 L12           1 S E3  
               E "POLY(BUTYLENE TEREPHTHALATE)"/CN  
 L13           2 S E3  
               E "POLY(ETHYLENE 2,6-NAPHTHALENE DICARBOXYLATE)"/CN  
 L14           1 S E5  
               E "NYLON-6,6"/CN  
               E "NYLON 6,6"/CN  
               E "NYLON-6,9"/CN  
               E "NYLON 6,9"/CN  
               E "NYLON-6,10"/CN  
               E "NYLON 6,10"/CN  
               E "AROMATIC NYLON"/CN

FILE 'MEDLINE, HCAPLUS, BIOSIS, EMBASE' ENTERED AT 10:49:47 ON 07 MAR 2003

L15           421722 S CATHETER? OR CATHETERS OR STENT OR STENTS OR BALLOON OR BALLO  
 L16           3426113 S SHEATH? OR COVERING? OR COAT OR COATS OR COATING OR LAYER? OR  
 L17           368579 S ZERO ABSORPTION OR PREVENT? (10N) (DIFFUS? OR PERMEAT? OR IMB  
 L18           8029939 S DRUG OR DRUGS  
 L19           513544 S IMPLANT?  
 L20           206220 S L1 OR L2 OR L3 OR L4 OR L5 OR L6 OR L7 OR L8 OR L9 OR L10 OR  
 L21           2 S L15 AND L16 AND L17 AND L20 AND L18(5N)L19  
 L22           21 S L15 AND L16 AND L17 AND L20  
 L23           2 S L18 AND L22  
 L24           0 S L23 NOT L21  
 L25           19 S L22 NOT L21

FILE 'MEDLINE, HCAPLUS, BIOSIS, EMBASE' ENTERED AT 11:09:57 ON 07 MAR 2003

L26           2 S (EPOXY OR EPOXIES) AND BISPHENOL(W)A(2W)DIEPOXIDE?(3N)AMINE  
 L27           1 S (EPOXY OR EPOXIES) (5N)BISPHENOL A (10N)DIEPOXIDE? (10N)AMINE  
 L28           1035 S (POLYURETHANE OR POLYURETHANES) AND GLASS TRANSITION TEMPERAT  
 L29           6 S (POLYURETHANE OR POLYURETHANES) AND (NONPOLAR OR NON POLAR OR  
 L30           296 S CELLULOSE ACETATE AND (DS OR DEGREE(2W)SEPARATION?)  
 L31           177 S OXYGEN TRANSMISSION RATE?  
 L32           488 S WATER VAPOR TRANSMISSION RATE? OR WATER VAPOUR TRANSMISSION R  
 L33           130 S L15 (10N)L16 AND L17  
 L34           0 S L33 AND (L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32)  
 L35           300 S L15 AND L16 AND L17  
 L36           1978 S L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32  
 L37           0 S L35 AND L36  
 L38           2 S L15 AND L16 AND L36

L38 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:598468 HCAPLUS

DOCUMENT NUMBER: 135:170817

TITLE: \*\*\*Coating\*\*\* for implantable devices and a method of forming the same

INVENTOR(S): Hossainy, Syed F. A.; Pacetti, Stephen D.; Fong, Keith E.; Bhat, Vinayak; Sanders, Millare Deborra; Guruwaiya, Judy A.; Mirzaee, Daryush; Mandrusov, Evgenia

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 39 pp., Cont.-in-part of U.S. Ser. No. 470,559.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001014717	A1	20010816	US 2000-750595	20001228
US 2002193475	A1	20021219	US 1999-470559	19991223
WO 2001074415	A1	20011011	WO 2001-US6914	20010302

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

WO 2002058753	A2	20020801	WO 2001-US50398	20011221
WO 2002058753	A3	20030116		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:  
US 1999-470559 A2 19991223  
US 2000-540241 A2 20000331  
US 2000-715510 A2 20001117  
US 2000-750595 A 20001228

AB Coatings for implantable devices or endoluminal prosthesis, such as \*\*\*stents\*\*\*, are provided, including a method of forming the coatings. The coatings can be used for the delivery of an active ingredient or a combination of active ingredients. \*\*\*Stents\*\*\* were cleaned by placement in an ultrasonic bath in iso-PrOH soln., dried and plasma cleaned. The \*\*\*stents\*\*\* were then dipped in a ethylene-vinyl alc. copolymer soln. in DMSO and then passed over a hot plate maintained at 60.degree.. The coated \*\*\*stents\*\*\* were expanded on a 4.0-mm \*\*\*balloon\*\*\* angioplasty.

L38 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:414781 BIOSIS  
DOCUMENT NUMBER: PREV200100414781  
TITLE: \*\*\*Catheter\*\*\* with protective \*\*\*covering\*\*\* .  
AUTHOR(S): Schoenholtz, Jason P. (1)  
CORPORATE SOURCE: (1) Manhattan Beach, CA USA  
ASSIGNEE: Biosense Webster, Inc., Diamond Bar, CA, USA  
PATENT INFORMATION: US 6203534 March 20, 2001  
SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (Mar. 20, 2001) Vol. 1244, No. 3, pp. No  
Pagination. e-file.  
ISSN: 0098-1133.

DOCUMENT TYPE: Patent  
LANGUAGE: English

AB A \*\*\*catheter\*\*\* has a shaft with a water-resistant protective  
\*\*\*covering\*\*\* along its length. The \*\*\*covering\*\*\* protects the  
\*\*\*catheter\*\*\* shaft, i.e., \*\*\*catheter\*\*\* body and tip section,  
from the elements of in vivo conditions, i.e., blood and other body  
fluids, and reduces softening of the \*\*\*catheter\*\*\* over time. The  
\*\*\*covering\*\*\* also adds a lubricious surface to increase the mobility  
of the \*\*\*catheter\*\*\*. However, the protective \*\*\*covering\*\*\* does  
not substantially affect the mechanical properties of the \*\*\*catheter\*\*\*  
. The \*\*\*covering\*\*\* extends over at least about 50% of the shaft. The  
\*\*\*covering\*\*\* has a thickness less than about 0.004 inch and is formed  
of a material having a \*\*\*water\*\*\* \*\*\*vapor\*\*\*  
\*\*\*transmission\*\*\* \*\*\*rate\*\*\* of less than about 9.0 g-mil/100 in<sup>2</sup>  
-24 hr at about 90% relative humidity and about 37degree C.

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200315

File 347:JAPIO Oct 1976-2002/Oct(Updated 030204)

File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	38853	CATHETER? ? OR STENT? ? OR BALLOON? ?
S2	12	ZERO()ABSORPTION
S3	114851	BARRIER? ?
S4	37112	PREVENT??? (7N) (ABSORB??? OR ABSORPT??? OR DIFFUS??? OR PER- MEAT?)
S5	907559	BLOCK???
S6	1042699	SHEATH? ? OR COVER???
S7	2335108	JACKET? ? OR SLEEV???? OR CAP OR CAPS OR TUBE OR TUBES OR - TUBULAR OR TUBELINK OR TUBIFORM OR CYLIND? OR CASING
S8	0	S1 AND S2
S9	218	S1 AND S3:S5 (5N) S6:S7
S10	504506	POLYOLEFIN? ? OR POLYURETHANE? ? OR CELLULOSIC? ? OR POLYE- STER? ? OR POLYAMIDE? ?
S11	2	POLY()HEXAMETHYLENE()ISOPHTHALAMIDE()TEREPHTHALAMIDE
S12	34669	POLYETHYLENE()TEREPHTHALATE
S13	6	POLY()HYDROXY()AMIDE()ETHER? ?
S14	2807	ACRYLONITRILE()STYRENE
S15	5181	STYRENE()ACRYLONITRILE
S16	0	RUBBER()MODIFIED()ACRYLONITRILE(N)ACRYLATE
S17	1819	ACRYLONITRILE(N)ACRYLATE
S18	10854	POLY()METHYL()METHACRYLATE OR POLYMETHYL()METHACRYLATE
S19	2508	LIQUID()CRYSTAL()POLYMER? ?
S20	4158	POLYPHENYLENE()SUL??IDE OR POLY()PHENYLENE()SUL??IDE
S21	7129	POLYPHENYLENE() (SULFIDE? ? OR SULPHIDE? ?)
S22	170255	POLYCARBONATE? ?
S23	40000	POLYVINYL()ALCOHOL? ? OR POLY()VINYL()ALCOHOL? ?
S24	767	POLYETHYLENE()VINYL()ALCOHOL? ?
S25	112	ALIPHATIC()POLYKETONE? ?
S26	1500	POLYKETONE? ?
S27	9140	POLYSULFONE? OR POLYSULPHONE? ?
S28	266	(POLYESTER OR POLYURETHANE OR POLYCARBONATE)() (SULFONE? ? - OR SULPHONE? ?)
S29	1556514	METAL
S30	337965	METALLIC
S31	1	POLY()3()HYDROXYOXETANE
S32	217	POLYAMINO()ETHER? ? OR POLY()AMINO()ETHER? ?
S33	12175	(POLY()VINYLIDENE OR POLYVINYLIDENE)() (CHLORIDE OR FLUORIDE)
S34	1508	(POLYVINYL OR POLY()VINYL)()FLUORIDE? ?
S35	723	POLYCHLOROTRIFLUOROETHYLENE OR POLY()CHLOROTRIFLUOROETHYLENE
S36	10184	ETHYL()CELLULOSE
S37	2423	CELLULOSE() (NITRATE OR ACETATE()BUTYRATE)
S38	21419	METHYL()CELLULOSE
S39	0	POLYETHEYLEN()2()6()NAPHTHALENE()DICARBOXYLATE
S40	1523	POLYETHYLENE()2()6
S41	7657	POLYBUTYLENE()TEREPHTHALATE
S42	9742	NYLON()6() (6 OR 10)
S43	87	AROMATIC()NYLON
S44	51	S9 AND S10:S38
S45	337	S1 AND S3:S5 AND S6:S7 AND S10:S43
S46	286	S45 NOT (S9 OR S44)
S47	35	S9 AND (S10:S28 OR S31:S43)
S48	35	IDPAT (sorted in duplicate/non-duplicate order)
S49	354087	PACKAG?

S50	172	S1(3N)S49
S51	1	S50 AND S3:S5 AND S6:S7 AND (S10:S28 OR S31:S43)
S52	1	S51 NOT S47
S53	9	S1 AND S49 AND S3:S5 AND S6:S7 AND (S10:S28 OR S31:S43)
S54	8	S53 NOT S51

48/7,K/26 (Item 26 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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008066902

WPI Acc No: 1989-332014/198945

Percutaneous venous catheter of vapour previous tube - has  
extra-vascular segment surrounded by vapour barrier sheath

Patent Assignee: FERRAGAMO M C (FERR-I)

Inventor: TROEIN P

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4863426	A	19890905	US 8786515	A	19870818	198945 B

Priority Applications (No Type Date): US 8786515 A 19870818

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 4863426	A		5		

Abstract (Basic): US 4863426 A

A **catheter** comprises a segment of vapour-pervious tubing with an open tip, and a second segment of flexible tubing surrounded by a vapour **barrier sheath** and with one end connected fluid-tightly to the first segment and with a connector fitting mounted to the opposite end to give a continuous fluid path between fitting and tip.

The second segment may be an integral extension of the first, and the sheath may be a flexible plastic sleeve connected between the fitting and the connection between the segments. The sleeve may be a coextrusion with a ply of water vapour impervious material between two plies of **catheter** tubing material, partic. a **polyolefin** ply between two **polyurethane** or silicone plies.

USE/ADVANTAGE - For use as a percutaneous central venous **catheter**, can remain in the body for a relatively long period of time and is not prone to thrombus occlusion.

0/4

Derwent Class: A96; B07; P34

International Patent Class (Additional): A61M-011/00

48/7,K/34 (Item 34 from file: 347)

DIALOG(R) File 347:JAPIO

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06209733 \*\*Image available\*\*

TUBE FOR **CATHETER** AND **CATHETER** USING THE SAME

PUB. NO.: 11-151293 [JP 11151293 A]

PUBLISHED: June 08, 1999 (19990608)

INVENTOR(s): FUKAYA KOHEI

APPLICANT(s): KANEGAFUCHI CHEM IND CO LTD

APPL. NO.: 09-318500 [JP 97318500]

FILED: November 19, 1997 (19971119)

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide an excellent tube for a **catheter** which has an improved anti-kink property, shape retaining property and more particularly shape restoring property and obviates the occurrence of the degradation in maneuverability and a **catheter** using the same.

SOLUTION: The outer side part 11 of a tube is composed of a high-polymer material having good compatibility with **polyolefin** and the inner side part 12 is composed of a **polyolefin** material. The high-polymer material constituting the outer side part of the **tube** is a **block** copolymer or graft copolymer of which at least one component consists of a component

having the good compatibility with the **polyolefin** . The high-polymer material constituting the outer side part of the tube consists of a blend of the high-polymer material having a solubility parameter larger than the solubility parameter of the **polyolefin** and a compatibilizing material having an effect of enhancing the **polyolefin** compatibility of the material.  
COPYRIGHT: (C)1999,JPO

52/7,K/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013120904 \*\*Image available\*\*

WPI Acc No: 2000-292775/200025

**Catheter sets for storing catheter before use and for collecting or discharging urine comprises distal part in tubular section form having inner diameter of at least as large as proximal part of catheter**

Patent Assignee: COLOPLAST AS (COLO-N)

Inventor: HANSEN H C; HORSBOEL N; TANGHOEJ A

Number of Countries: 088 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200016843	A1	20000330	WO 99DK501	A	19990923	200025 B
AU 9957275	A	20000410	AU 9957275	A	19990923	200035
EP 1115450	A1	20010718	EP 99944281	A	19990923	200142
			WO 99DK501	A	19990923	
CN 1319026	A	20011024	CN 99811288	A	19990923	200213
HU 200103526	A2	20020128	WO 99DK501	A	19990923	200222
			HU 20013526	A	19990923	
JP 2002526214	W	20020820	WO 99DK501	A	19990923	200258
			JP 2000573802	A	19990923	

Priority Applications (No Type Date): DK 981196 A 19980923

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200016843 A1 E 22 A61M-025/01

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN  
CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK  
SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 9957275 A A61M-025/01 Based on patent WO 200016843

EP 1115450 A1 E A61M-025/01 Based on patent WO 200016843

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
LU MC NL PT SE

CN 1319026 A A61M-025/01

HU 200103526 A2 A61M-025/01 Based on patent WO 200016843

JP 2002526214 W 24 A61M-025/00 Based on patent WO 200016843

Abstract (Basic): WO 200016843 A1

NOVELTY - A catheter comprises a distal part in a **tubular** section form having an inner diameter of at least as large of that proximal part of the catheter, where the sealing part is separating the proximal part of the catheter and the **tubular** distal part, and the length of the **tubular** distal part is at least long enough to occupy the elongated part of the package.

DETAILED DESCRIPTION - A catheter set comprises a **catheter** (1) and a **package** (2) for storing of the catheter before use and for collecting or discharging urine, where an elongated part of the package forms a **tube** for accommodation of the catheter. The catheter



comprises a proximal part to be inserted into the urethra and a sealing part for providing a seal between the catheter and the elongated part of the **package** during use. The **catheter** further comprises a distal part in a **tubular** section form having an inner diameter of at least as large of that proximal part of the catheter, where the sealing part (3) is separating the proximal part of the catheter and the **tubular** distal part (4), and the length of the **tubular** distal part is at least long enough to occupy the elongated part of the package.

USE - For storing of the catheter before use and for collecting or discharging urine.

ADVANTAGE - The inventive shape of the catheter combined with the shape of the package prevents **blocking** of the free flow of urine from the urethra into the package by securing the relatively soft and pliable package from kinking or squeezing.

DESCRIPTION OF DRAWING(S) - The figure shows an embodiment of a catheter set according to the invention.

Catheter (1)  
Package (2)  
Sealing part (3)  
**Tubular** distal part (4)  
Tear off position (5)  
Weak point (6)  
Ear (7)  
Container (8)  
pp; 22 DwgNo 1/5

Derwent Class: A96; P34

International Patent Class (Main): A61M-025/00; A61M-025/01

Technology Focus:

... Preferred Composition: The **tubular** part is made from an extrudable and moldable material, e.g. **polyolefin**, e.g., polyethylene, polypropylene or a copolymer of polyethylene, (e.g. ethylene vinyl chloride, polyvinyl chloride or **polyvinylidene chloride** ).

54/7,K/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012900309 \*\*Image available\*\*

WPI Acc No: 2000-072145/200006

**Rendering object surfaces resistant to biopolymer adhesion**

Patent Assignee: LAIBINIS P E (LAIB-I); LEE S (LEES-I); MASSACHUSETTS INST TECHNOLOGY (MASI )

Inventor: LAIBINIS P E; LEE S

Number of Countries: 021 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9952574	A1	19991021	WO 99US7820	A	19990409	200006 B
US 6235340	B1	20010522	US 9881387	P	19980410	200130
			US 99289288	A	19990409	
US 20010031309	A1	20011018	US 9881387	P	19980410	200166
			US 99289288	A	19990409	
			US 2001812799	A	20010320	

Priority Applications (No Type Date): US 99289288 A 19990409; US 9881387 P 19980410; US 2001812799 A 20010320

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 9952574	A1	E	57 A61L-033/00	

Designated States (National): CA JP

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE

US 6235340	B1	A61L-015/50	Provisional application US 9881387
US 20010031309	A1	A61L-002/00	Provisional application US 9881387
			Cont of application US 99289288
			Cont of patent US 6235340

Abstract (Basic): WO 9952574 A1

NOVELTY - A method of rendering surfaces of objects resistant to adhesion of biopolymers comprises treating surfaces of objects with solution comprising molecules (I) that adhere to the surface.

USE - (I) are useful for rendering surfaces of objects resistant to the adhesion of biopolymers (claimed). Useful in fields of ophthalmological devices (activation of biochemical process, impaired optical properties), blood bags and related devices for collection and storage of blood and blood components, food processing and storage including dairy and meat industries, pharmaceutical products (adsorption and denaturation of peptides or active agents), human hygiene products (diapers and sanitary napkins), membranes (polarization and fouling), sensors (non-specific binding), separation processes such as chromatography, electrophoresis and field-flow fractionation, electronic industry and in electrochemical detection and analysis where electrostatic charge or interfering background charged needs to be minimized. Useful for treating blood-contacting surfaces and surfaces of biosensors, bioseparation chambers or surfaces of electronic devices or components or electrochemical detection or analysis devices. Useful for treating diagnostic surfaces where reduced non-specific protein adsorption is desirable e.g. those requiring specific interaction of analyte and detector species e.g. biosensors, bioseparation membranes and sight-correction devices. Useful for improving medical or laboratory devices to increase biocompatibility and resistance to protein binding. Useful for treating laboratory ware to be used in conjunction with tissue or cell cultures and protein-containing fluids e.g. blood or serum, such as assay plates, supports or membranes, glassware, cell culture or bioreactor devices or assemblies, tubing for blood transfer, blood cell-storage bags, filters, pharmaceutical manufacturing and **packaging**, protein isolation, preparation and purification devices or systems, any devices or apparatus made of glass as well as devices for in vivo applications including **catheters** for surgical insertion through blood vessels, the urethra or body conduits, **balloon catheters**, guide wires, endotracheal **tubes**, implants and other medical devices such as outer surfaces of endoscopes, contact lenses, prostheses, blood dialysis equipment components, dialysis membranes, heart valves, circulatory-assist devices, blood substitutes, artificial lungs, central venous **catheters**, thoracic drain **catheters**, angioplasty **balloon catheters**, glass tubing in extra-corporeal circuitry (heart and/or lung bypasses) and entire extra-corporeal circuits (whole blood oxygenators, cannulae, vascular grafts, sutures, membranes used in blood separation, apheresis and donorpheresis units, gas exchange membranes used in whole blood oxygenators, **polycarbonate** membranes and hemodialysis membranes, and membranes used in diagnostic and biosensor devices, biosensors and other devices used in diagnosis such as cuvettes used in blood clotting time determinations.

ADVANTAGE - Produced under mild and scaleable reaction conditions from simple, low-molecular weight components. Improves biocompatibility compared to untreated surfaces, wettability and lubricity to avoid

formation of gas bubbles in tubing and facilitate insertion of **catheters** via surgical incisions. Surfaces possess no net surface charge. Reduces thrombogenicity of blood-contacting surfaces and inhibits or **prevents** non-specific **absorption** of protein surfaces.

DESCRIPTION OF DRAWING(S) - Schematic illustration for formation of oligo(ethylene glycol)-terminated self-assembled monolayers (SAMs).

pp; 57 DwgNo 1/6

Derwent Class: A96; B04; D22; G02; P34; S03

International Patent Class (Main): A61L-002/00; A61L-015/50; A61L-033/00

International Patent Class (Additional): A61L-027/00; G01N-033/543

**54/7,K/7** (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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007489793

WPI Acc No: 1988-123726/198818

**Soft polyvinyl chloride series resin compsn. - contg. blended PVC and thermoplastic polyurethane , and modified polyvinyl polyester polyethylene copolymer series resin**

Patent Assignee: DAINIPPON INK & CHEM KK (DNIN )

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 63068654	A	19880328	JP 86212397	A	19860909	198818 B
JP 93013984	B	19930223	JP 86212397	A	19860909	199311

Priority Applications (No Type Date): JP 86212397 A 19860909

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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JP 63068654	A		7		
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JP 93013984	B		7	C08L-027/06	Based on patent JP 63068654
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Abstract (Basic): JP 63068654 A

Soft PVC series resin compsn. comprises 100 pts. wt. of blended polymers from (A) PVC and (B) thermoplastic **polyurethane** , and 5-50 pts. wt. of modified vinyl ester ethylene copolymer series resin (C). (C) is prepd. by polymerising 5-50 pts. wt. of polar vinyl monomer with solubility parameter of 8.5-15, in presence of 100 pts. wt. of copolymer from vinyl ester and ethylene, and the prod. with solubility parameter of 8.5-15. (A) comprises VC copolymer with less than 30 wt.% of comonomer and with deg. of polymerisation of 600-1800. Thermoplastic **polyurethane** is prepd. from polyhydroxy- and polyisocyanate-cpds. and chain elongation reagent and with mol. wt. of 1000-5000 and melt viscosity at 170 deg.C of 10 power 3-10 power 5 poise. Modified vinyl ester ethylene copolymer (C) has melt viscosity at 170 deg.C of 10 power 3-10 power 5 poise.

USE/ADVANTAGE - The compsn. has no bleeding and **blocking** properties and has low temp. resistance and high processability and transparency with no fish eyes. Useful to produce wire and cable **sheath** , hose and **packaging** materials for precision machines or medical use e.g. blood bags, **catheters** , band-aids, etc.

0/0

Derwent Class: A14; A92; A96

International Patent Class (Main): C08L-027/06

International Patent Class (Additional): C08L-031/04; C08L-075/04;

C08L-027/06; C08L-051-06; C08L-075-04

*titles Only*

48/26, TI/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

014877849

WPI Acc No: 2002-698555/200275

Administering closure forming or bulking up composition in minimally invasive surgery, comprises mixing water insoluble particle and carrier and applying to lumen

48/26, TI/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

014745923

WPI Acc No: 2002-566630/200260

Polymer-based drug delivery composition for delivery of therapeutic agents, comprises biocompatible block copolymer comprising elastomeric block(s) and thermoplastic block(s), loaded with therapeutic agent

48/26, TI/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

014357882

WPI Acc No: 2002-178583/200223

Method for localized delivery of agents e.g. aspirin or heparin to blood vessels for treatment of vascular disorders without systemic effect, uses polymer matrix carrier e.g. polyvinylalcohol

48/26, TI/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

014234626

WPI Acc No: 2002-055324/200207

A device for inserting into the vagina, rectum or nasal cavity, which is partially covered with a pharmaceutical agent

48/26, TI/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014127243

WPI Acc No: 2001-611453/200170

Catheter for local or regional anesthesia and peripheral pain management situations, e.g. interscalene blocks, has tube with closed-end distal portion, and reinforcement members

48/26, TI/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014004218

WPI Acc No: 2001-488432/200153

Polymer composites for use in intravascular catheters and balloon type catheters, comprising polymer matrix having nano clay and crosslinking agent dispersed therein

48/26, TI/10 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

013796941

WPI Acc No: 2001-281153/200129

Intravascular catheter system for implanting a stent in body lumen, comprises elongated shaft having proximal end, distal end, and at least one lumen, and radially non compliant balloon

48/26, TI/12 (Item 12 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013458107

WPI Acc No: 2000-630050/200061

Endoprosthesis especially, useful for treating vascular disease, comprises cylindrical spring stent elements and flexible tube and is coated with or encapsulated in biocompatible copolymer

48/26, TI/13 (Item 13 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013166973

WPI Acc No: 2000-338846/200029

Stent compressing and loading device has block with funnel shaped tube, bagged stent with low friction coating and pull string is pulled into wide bore and through block onto catheter inserted in narrow bore

48/26, TI/15 (Item 15 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

012638231

WPI Acc No: 1999-444335/199937

Forming a molded tip on tubing, particularly a stent delivery, guide, or angiographic catheter

48/26, TI/16 (Item 16 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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012613124

WPI Acc No: 1999-419228/199935

Bioabsorbable fiber used for in vivo implantation such as spinal fusion cage implants and stents

48/26, TI/17 (Item 17 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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012481571

WPI Acc No: 1999-287679/199927

Braided angiography catheter for cardiovascular interventions

48/26, TI/18 (Item 18 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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012168579

WPI Acc No: 1998-585490/199850

Stronger more uniform balloon for dilation catheter formed from tube of polyester block copolymer - by subjecting the tube to preconditioning expansion in a pre-condition mould to form a parison before final expansion into a balloon in a balloon mould.

48/26, TI/19 (Item 19 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
010831438

WPI Acc No: 1996-328390/199633

Detection needle set for administering intravenous fluid - has female part projecting from one end of catheter with taper in its end and is detachably connected with needle

48/26, TI/20 (Item 20 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
010322884

WPI Acc No: 1995-224158/199529

Guiding catheter filled with soft tip to avoid causing trauma to a blood vessel - has lubricous inner surface to facilitate passage of guidewire(s) and medical devices, stiff main body portion and flexible distal portion

48/26, TI/21 (Item 21 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
010253819

WPI Acc No: 1995-155074/199520

Catheter for advancing through potentially contaminated tissue to desired site - has at least one fluid lumen throughout and blunt distal end covered by barrier of biocompatible material selectively removed by fluid pressure exceeding set level.

48/26, TI/22 (Item 22 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
010245399

WPI Acc No: 1995-146654/199519

Intravascular catheter, particularly for angiography - has braided reinforcing sleeve between polyamide inner and polyether block amide outer layers, and reduced wall thickness

48/26, TI/23 (Item 23 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
009717344

WPI Acc No: 1993-410897/199351

Blood-compatible block copolymers used for medical equipment e.g. suturing thread - have combinations of acrylic acid polyester units, polystyrene units and polyolefin units

48/26, TI/24 (Item 24 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
008864230

WPI Acc No: 1991-368255/199150

Blood pressure monitor - comprises a silicon transducer at a distal end of a flexible tube provided with a barrier coating of parylene

48/26, TI/25 (Item 25 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
008377329

WPI Acc No: 1990-264330/199035

**Producing catheter - by extrusion moulding of soft and hard materials which are inserted into cylinder and melting**

**48/26, TI/27 (Item 27 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

007711874

WPI Acc No: 1988-345806/198848

**Urinary catheter meatal pad - has radial slit in tubular foam block with flexible coating about end region**

**48/26, TI/28 (Item 28 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

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007318315

WPI Acc No: 1987-315322/198745

**Ion sensor with stable ionic characteristics - having electrically conductive substrate, redox layer, barrier layer and ion-selective layer**

**48/26, TI/29 (Item 29 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

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004817241

WPI Acc No: 1986-320582/198649

**Injection pocket for subcutaneous implantation in patient - is suitable for one shot injections and continuous transfusions**

**48/26, TI/30 (Item 30 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

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004565815

WPI Acc No: 1986-069159/198611

**Balloon catheter partic. for heat disease treatment - has liquid passage parallel to illumination and imaging light guides**

**48/26, TI/31 (Item 31 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

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003710966

WPI Acc No: 1983-707148/198328

**Flexible foam block anchorages for catheter tubes - to inhibit accidental dislocation**

**48/26, TI/32 (Item 32 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

001388231

WPI Acc No: 1975-37923W/197523

**Instruments for measuring gases in the blood of living bodies - has flexible gas-impermeable nylon catheter**

**48/26, TI/35 (Item 35 from file: 347)**

DIALOG(R) File 347:JAPIO

(c) 2003 JPO & JAPIO. All rts. reserv.

05928172

**CATHETER HAVING INFECTION RESISTANCE**

54/26, TI/2 (Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

013904723

WPI Acc No: 2001-388936/200141

Wear resistant or biocompatible ceramic coating with wide range of uses  
is of amorphous, conductive transition metal nitride(s) and applied at  
room temperature to substrate

54/26, TI/4 (Item 4 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

012481779

WPI Acc No: 1999-287887/199924

Thin-walled, elastic articles for use as medical or surgical gloves, food  
storage bags

54/26, TI/6 (Item 6 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

009077855

WPI Acc No: 1992-205275/199227

Biodegradable packaging for medical prods. etc. - contains  
polyhydroxyalkanoate or its copolymer, lipid cpd., and resin e.g. PVC

54/26, TI/8 (Item 8 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

001138267

WPI Acc No: 1974-11918V/197407

Gimping elastic core yarn - by withdrawing core yarn from stationary  
package and winding cover yarn around it



File 348:EUROPEAN PATENTS 1978-2003/Feb W04

File 349:PCT FULLTEXT 1979-2002/UB=20030227,UT=20030220

Set	Items	Description
S1	37483	CATHETER? ? OR STENT? ? OR BALLOON? ?
S2	61	ZERO()ABSORPTION
S3	86707	BARRIER? ?
S4	19052	PREVENT??? (7N) (ABSORB??? OR ABSORPT??? OR DIFFUS??? OR PER-MEAT?)
S5	470880	BLOCK???
S6	415627	SHEATH? ? OR COVER???
S7	607460	JACKET? ? OR SLEEV???? OR CAP OR CAPS OR TUBE OR TUBES OR - TUBULAR OR TUBELINK OR TUBIFORM OR CYLIND? OR CASING
S8	3	S1 AND S2
S9	1706	S1 AND S3:S5(5N)S6:S7
S10	183446	POLYOLEFIN? ? OR POLYURETHANE? ? OR CELLULOSIC? ? OR POLYESTER? ? OR POLYAMIDE? ?
S11	8	POLY()HEXAMETHYLENE()ISOPHTHALAMIDE()TEREPHTHALAMIDE
S12	23746	POLYETHYLENE()TEREPHTHALATE
S13	28	POLY()HYDROXY()AMIDE()ETHER? ?
S14	3852	ACRYLONITRILE()STYRENE
S15	6761	STYRENE()ACRYLONITRILE
S16	5	RUBBER()MODIFIED()ACRYLONITRILE(N)ACRYLATE
S17	3155	ACRYLONITRILE(N)ACRYLATE
S18	17226	POLY()METHYL()METHACRYLATE OR POLYMETHYL()METHACRYLATE
S19	2967	LIQUID()CRYSTAL()POLYMER? ?
S20	553	POLYPHENYLENE()SUL??IDE OR POLY()PHENYLENE()SUL??IDE
S21	4494	POLYPHENYLENE() (SULFIDE? ? OR SULPHIDE? ?)
S22	51610	POLYCARBONATE? ?
S23	38608	POLYVINYL()ALCOHOL? ? OR POLY()VINYL()ALCOHOL? ?
S24	270	POLYETHYLENE()VINYL()ALCOHOL? ?
S25	136	ALIPHATIC()POLYKETONE? ?
S26	1517	POLYKETONE? ?
S27	12231	POLYSULFONE? OR POLYSULPHONE? ?
S28	952	(POLYESTER OR POLYURETHANE OR POLYCARBONATE)() (SULFONE? ? - OR SULPHONE? ?)
S29	500922	METAL
S30	121182	METALLIC
S31	2	POLY()3()HYDROXYOXETANE
S32	498	POLYAMINO()ETHER? ? OR POLY()AMINO()ETHER? ?
S33	15281	(POLY()VINYLIDENE OR POLYVINYLIDENE)() (CHLORIDE OR FLUORIDE)
S34	2870	(POLYVINYL OR POLY()VINYL)()FLUORIDE? ?
S35	1456	POLYCHLOROTRIFLUOROETHYLENE OR POLY()CHLOROTRIFLUOROETHYLENE
S36	27426	ETHYL()CELLULOSE
S37	6002	CELLULOSE() (NITRATE OR ACETATE()BUTYRATE)
S38	59795	METHYL()CELLULOSE
S39	0	POLYETHEYLEN()2()6()NAPHTHALENE()DICARBOXYLATE
S40	732	POLYETHYLENE()2()6
S41	5909	POLYBUTYLENE()TEREPHTHALATE
S42	8068	NYLON()6() (6 OR 10)
S43	91	AROMATIC()NYLON
S44	1287	S9 AND S10:S38
S45	70	S1(5N)S6:S7(5N)S2:S4
S46	1	S45(S) (S10:S28 OR S30:S43)
S47	46	S1(S)S6:S7(S)S2:S4(S) (S10:S28 OR S30:S43)
S48	45	S47 NOT S46
S49	38	DRUG()IMPLANT?
S50	1584	DRUG? ? (3N)IMPLANT?

S51	318	S1(S)S50
S52	24	S2:S5(S)S51
S53	24	S52 NOT S48
S54	2	S53(S)S6:S7

46/3,K/1 (Item 1 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00570395

**STENT COVER**

**ENVELOPPE DE STENT**

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200033768 A1 20000615 (WO 0033768)  
Application: WO 98US25674 19981204 (PCT/WO US9825674)  
Priority Application: WO 98US25674 19981204

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES  
FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD  
MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US  
UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE  
CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN  
GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 8292

Detailed Description

... SUMMARY OF THE INVENTION

The present invention provides a **stent cover** adapted to act as a **barrier** between an expandable vascular **stent** and the vascular surface. The **stent cover** is adapted to be placed over a stent (e.g., an expandable **metallic** stent) that is deployed percutaneously within a mammalian vein or artery. The stent cover functions...

48/3,K/14 (Item 6 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00923115 \*\*Image available\*\*

**DELIVERY OF THERAPEUTIC CAPABLE AGENTS**

**LIBERATION D'AGENTS A CAPACITE THERAPEUTIQUE**

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200256790 A2-A3 20020725 (WO 0256790)  
Application: WO 2001US49366 20011218 (PCT/WO US0149366)

Priority Application: US 2000258024 20001222; US 2001782927 20010213; US 2001783254 20010213; US 2001783253 20010213; US 2001782804 20010213; US 2001308381 20010726; US 20012595 20011101

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 24397

Detailed Description

... [1771 EXAMPLE3-A therapeutic capable agent was dissolved in methanol, then sprayed 2 5 onto the **stent**. The **stent** was left to dry with the solvent evaporating from the **stent** leaving the therapeutic capable agent on the **stent**. A matrix or **barrier** (silicone, **polyurethane**, polytetrafluorethylene, parylast, parylene) was sprayed or deposited on the **stent covering** the therapeutic capable agent. The amount of therapeutic capable agent varied from about 100 micrograms...

48/3,K/18 (Item 10 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00834319

#### ENDOVASCULAR GRAFT COATINGS

#### RENETEMENTS D'IMPLANTS ENDOVASCULAIRES

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THE ARIZONA BOARD OF REGENTS ON BEHALF OF THE UNIVERSITY OF ARIZONA, 888

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200166161 A1 20010913 (WO 0166161)

Application: WO 2001US40255 20010306 (PCT/WO US0140255)

Priority Application: US 2000519246 20000306

Designated States: AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ CZ (utility model) DE DE (utility model) DK DK (utility model) DM DZ EE EE (utility model) ES FI FI (utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SK (utility model) SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 8590

Detailed Description

... Optionally, a reagent of this invention can also be used to coat an expandable **metallic** or polymeric **stent** with a thrombogenic layer, i.e., without employing or coating a **stent cover**. Several such **stents** can be deployed, for instance, in an overlapping or superimposed manner, such that they effectively provide a substantially impenetrable **barrier** to the flow of blood components. In such an embodiment, one or all of the overlapping **stents** can be provided with a thrombogenic surface in the manner described herein...

48/3,K/32 (Item 24 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00553251 \*\*Image available\*\*

**SAFE AND EFFECTIVE BIOFILM INHIBITORY COMPOUNDS AND HEALTH-RELATED USES THEREOF**

**COMPOSES SURS ET EFFICACES INHIBITEURS DE FILMS BIOLOGIQUES, ET UTILISATIONS DANS DES DOMAINES RELIES A LA SANTE**

Patent Applicant/Assignee:

PHYCOGEN INC,

Inventor(s):

ALBERTE Randall S,

ZIMMERMAN Richard C,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200016624 A1 20000330 (WO 0016624)

Application: WO 99US22235 19990923 (PCT/WO US9922235)

Priority Application: US 98159814 19980923

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 23467

Claim

... be by transmucosal or transdermal means. For transmucosal or transdermal administration, penetrants appropriate to the **barrier** to be penetrated are used in the formulation. Such penetrants are generally known in...used in invasive surgical, therapeutic or diagnostic procedures; implantable medical devices, including artificial blood vessels, **catheters** and other devices for the removal or delivery of fluids to patients. artificial hearts, artificial kidneys, orthopedic pins, plates and implants; **catheters** and other **tubes** (including urological and biliary **tubes**, endotracheal **tubes**, peripherally insertable central venous **catheters**, dialysis **catheters**, long term tunneled central venous **catheters**, peripheral venous **catheters**, short term central venous **catheters**, arterial **catheters**, pulmonary **catheters**, Swan-Ganz **catheters**, urinary **catheters**, penile **catheters**), urinary devices (including long term urinary devices, tissue bonding urinary devices, artificial urinary sphincters, urinary... implants, penile prostheses, vascular grafting prostheses, heart valves, artificial joints, artificial larynxes, otological implants), vascular **catheter** ports, wound drain **tubes**, hydrocephalus shunts, pacemakers

and implantable defibrillators, and the like. Other examples will be readily apparent...

- ...counter tops and fixtures in areas used for medical procedures or for preparing medical apparatus, **tubes** and canisters used in respiratory treatments, including the administration of oxygen, of solubilized drugs in nebulizers and of anesthetic agents. Also included are those surfaces intended as biological **barriers** to infectious organisms in medical settings, such as gloves, aprons and faceshields. Commonly used materials for biological **barriers** may be latex-based or non-latex based. Vinyl is commonly used as a material...
- ...contact with liquids are particularly prone to biofilm formation. As an example, those reservoirs and **tubes** used for delivering humidified oxygen to patients can bear biofilms inhabited by infectious agents... such as polyvinyl chloride, olefins such as polyethylene or polypropylene. fluoropolymers such as polytetrafluorethylene, and **polyesters** such as terephthalates. The diffusional systems may be molded into a film or other layer...
- ...of the Elements, CAS version, Handbook of Chemistry and Physics, 67th Ed., 1986-87, inside **cover**. Also for purposes of this invention, the term "hydrocarbon" is contemplated to include all permissible...

48/3,partial KWIC/40 (Item 32 from file: 349).

DIALOG(R) File 349:PCT FULLTEXT

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00322447 \*\*Image available\*\*

**POLYMER MATRIX DRUG DELIVERY APPARATUS AND METHOD**

**SYSTEME ET METHODE D'APPORT DE MEDICAMENTS PAR MATRICE POLYMERE**

Patent Applicant/Assignee:

CORTRAK MEDICAL INC,

Inventor(s):

WALSH Robert G,  
SHAPLAND J Edward,  
HILDEBRAND Keith R,  
WHITWORTH Glenn,  
SORIA Inmaculada,  
RACCHINI Joel R,  
SHIMADA Jin,  
KNUDSON Mark B,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9604955 A2 19960222

Application: WO 95US10471 19950816 (PCT/WO US9510471)

Priority Application: US 94291394 19940816

Designated States: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU

IS JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NO NZ PL PT RO RU SD

SE SG SI SK TJ TM TT UA UG UZ VN KE MW SD SZ UG AT BE CH DE DK ES FR GB

GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 15063

Claim

The **balloon 92** consists of a substantially  
**cylindrical** section of a porous material that is  
attached along either end to the **catheter body 96** using  
an adhesive or heat weld. The **polymer matrix material**  
**94** is disposed on the outer surface of the **balloon 92**  
for intimate contact with a vessel wall 101 after  
5 expansion (see Figure 9B).  
In use, the **balloon 92** is expanded with a

fluid supplied through fluid-supply lumen 102 while wire lumen...

Figure 10 depicts a catheter substantially

... In addition to performing PCTA and preventing the reclosure of arteries, the catheter of the present invention can be used to deliver a variety of drugs in order...

... A sheath 228 covers the probe 211 and the entire electrode 216. The sheath 228 is preferably made from a polymer matrix such as a hydrogel, which is lubricous...

...of prostaglandins; DMSO; or protamine sulfate in order to enhance penetration across the urethra. Removable sheaths or probe/ sheath combinations that already contain the proper dose of drug might be sold at pharmacies. Alternatively, the user might soak the removable sheath in a solvent that contains the prescribed drug. The polymer matrix will then absorb the drug. The removable sheath 228 is then ready to use.

54/3,AB,K/2 (Item 2 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00210399

IMPLANTABLE DRUG DISPENSING MULTIELECTRODE CATHETER

CATHETER IMPLANTABLE A PLUSIEURS ELECTRODES SERVANT A ADMINISTRER UN MEDICAMENT

Patent Applicant/Assignee:

XAVIER Ravi,

Inventor(s):

XAVIER Ravi,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9207605 A1 19920514

Application: WO 90US6596 19901105 (PCT/WO US9006596)

Priority Application: WO 90US6596 19901105

Designated States: AT BE CH DE DK ES FR GB GR IT JP LU NL SE

Publication Language: English

Fulltext Word Count: 6655

English Abstract

A catheter (10) intended to be implanted in the epidural space of a patient for relief of pain, either temporarily or permanently, includes four circumferential ring electrodes (14) connected to terminals (28) by fine wires (16) embedded in the sidewall (15) of the catheter for attachment to a conventional electric pulse generator (19) and a hollow elongated body (12) having a lumen (17) therethrough with an injection portal (26) at the proximal end and an aperture (30) at the distal end for continuously administering a pain-relieving agent in a liquid form. The agent may be a narcotic or anesthesia. In the permanently implantable embodiment, the catheter includes an implantable pulse generator (33) and an implantable drug reservoir (32), both of which can be repeatedly programmed while implanted. Methods for treating pain using the catheter include electrical stimulation, the use of narcotics, or anesthesia, which can be administered in any order, or simultaneously as empirically determined to provide the best pain relief for each patient.

Detailed Description

... 33, The drug pump 32 is connected to the lumen 17 by a

drug administration **catheter** 34 coupled to the **catheter** 10 by stainless steel connector **tube** 36, The drug pump 23 may be a mechanical pump that derives its pumping power...

...further includes the

implantable electrical pulse generator 33, connected to the wires 16 of the **catheter** 10 by the lead set 40, which includes the connector **blocks** 44, into which the terminals 28 of the **catheter** 10- are connected, The pulse generator 33 is preferably a self-contained light-weight unit...

...is currently available from

Medtronic Incorporated of Minneapolis, Minnesota, U.S.A. In use, the **catheter** 10..is implanted and then the two ring electrodes that provide the best pain relief are selected as previously described. Those two terminals 28 are then connected to the connector **blocks** 44, The entire system 31 is then implanted and the opening in the patient is...



*titles Only*

48/6/4 (Item 4 from file: 348)  
00735233  
MEDICAL BALLOON FOLDING INTO PREDETERMINED SHAPES

48/6/5 (Item 5 from file: 348)  
00584055  
DEVICES FOR PERFORMING INTRALUMINAL PROCEDURES

48/6/6 (Item 6 from file: 348)  
00518730  
Process for antimicrobial treatment of polyurethane.

48/6/7 (Item 7 from file: 348)  
00260746  
Aspirating device.

48/6/19 (Item 11 from file: 349)  
00828588  
STERILITY BARRIERS FOR INSERTION OF NON-STERILE APPARATUS INTO CATHETERS OR  
OTHER MEDICAL DEVICES  
Publication Year: 2001

48/6/26 (Item 18 from file: 349)  
00761643 \*\*Image available\*\*  
DEVICES AND COMPOUNDS FOR TREATING ARTERIAL RESTENOSIS  
Publication Year: 2000

48/6/33 (Item 25 from file: 349)  
00435081 \*\*Image available\*\*  
STENT GRAFTS CONTAINING PURIFIED SUBMUCOSA  
Publication Year: 1998

48/6/34 (Item 26 from file: 349)  
00435080 \*\*Image available\*\*  
STENT WITH REDUCED THROMBOGENICITY  
Publication Year: 1998

48/6/35 (Item 27 from file: 349)  
00428043 \*\*Image available\*\*  
TRANSCUTANEOUS ACCESS DEVICE  
Publication Year: 1998

48/6/36 (Item 28 from file: 349)  
00405430 \*\*Image available\*\*  
ENDOLUMINAL PROSTHETIC BIFURCATION SHUNT  
Publication Year: 1997

48/6/38 (Item 30 from file: 349)  
00366518 \*\*Image available\*\*  
CATHETER  
Publication Year: 1997

53/6/1 (Item 1 from file: 348)  
01325414  
Intravascular prosthesis

53/6/2 (Item 2 from file: 348)

01082728

**Implantable drug infusion device**

53/6/6 (Item 2 from file: 349)

00936248 \*\*Image available\*\*

**INGROWTH PREVENTING INDWELLING CATHETER ASSEMBLY**

Publication Year: 2002

53/6/8 (Item 4 from file: 349)

00913364 \*\*Image available\*\*

**PATIENT ACTIVATED ADMINISTRATION OF DRUG BOLUS FROM IMPLANTABLE DRUG  
DELIVERY SYSTEM HAVING TIMER FOR LOCKOUT INTERVAL**

Publication Year: 2002

53/6/10 (Item 6 from file: 349)

00851862 \*\*Image available\*\*

**DRUG DELIVER CATHETER DEVICE WITH ACTIVE ELECTRODE**

Publication Year: 2001

53/6/12 (Item 8 from file: 349)

00578390 \*\*Image available\*\*

**TISSUE LOCALIZED DRUG DELIVERY APPARATUS AND PROCESS**

Publication Year: 2000

53/6/14 (Item 10 from file: 349)

00561079 \*\*Image available\*\*

**SYSTEMS AND COMPOUNDS FOR DRUG DELIVERY TO INTERSTITIAL REGIONS OF THE  
MYOCARDIUM**

Publication Year: 2000

53/6/15 (Item 11 from file: 349)

00507200 \*\*Image available\*\*

**IMPLANTABLE DRUG INFUSION DEVICE HAVING A FLOW REGULATOR**

Publication Year: 1999

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200315

File 347:JAPIO Oct 1976-2002/Oct(Updated 030204)

File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	38853	CATHETER? ? OR STENT? ? OR BALLOON? ?
S2	1510	DRUG? ? (S) IMPLANT?
S3	38853	CATHETER? ? OR STENT? ? OR BALLOON? ?
S4	1510	DRUG? ? (S) IMPLANT?
S5	4605148	HEATH? ? OR COVERING? ? OR COAT??? OR LAYER? ? OR JACKET? ? OR SLEEVE? ? OR SLEEVELET? ? OR CAP OR CAPS OR TUBE OR TUBES OR TUBULAR OR TUBELIKE OR TUBIFORM OR CYLIND? OR CASING? ?
S6	158158	ZERO()ABSORPTION OR BARRIER? ? OR PREVENT??? (10N) (ABSORB??? OR ABSORPT??? OR DIFFUS??? OR PERMEAT??? OR IMBUE? ? OR IMBU- ING)
S7	143964	POLYACRYLATE? ? OR POLYACRYLONITRILE? ? OR POLYSTYRENE? ? - OR GELATIN? ? OR AMYLOSE? ? OR PARYLENE() (C OR D OR N)
S8	266354	POLYETHYLENE? ? OR POLYVINYL()CHLORIDE OR POLY()VINYL()CHL- ORIDE OR POLYTETRAFLUOROETHYLENE
S9	59534	SHEATH? ?
S10	3	S3 AND S4 AND (S5 OR S9) AND S6 AND S7:S8
S11	59	S3 AND S6 AND S7:S8 AND (S5 OR S9)
S12	56	S11 NOT S10
S13	15218	IC=A61M-025
S14	5	S12 AND S13
S15	5	S14 NOT S10

10/7/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014051993 \*\*Image available\*\*

WPI Acc No: 2001-536206/200159

**Catheter for delivering drug, comprises catheter body with delivery lumen and stylet lumen with stylet lumen proximal aperture, configured to permit stylet to abut from distal end to proximal end of stylet lumen**

Patent Assignee: DURECT CORP (DURE-N)

Inventor: FILICE J A; GILLIS E M; THEEUWES F

Number of Countries: 095 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200141858	A2	20010614	WO 2000US33476	A	20001207	200159 B
AU 200119583	A	20010618	AU 200119583	A	20001207	200161
EP 1235610	A2	20020904	EP 2000982564	A	20001207	200266
			WO 2000US33476	A	20001207	

Priority Applications (No Type Date): US 99457502 A 19991208

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200141858	A2	E	39	A61M-025/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200119583	A			A61M-025/00	Based on patent WO 200141858
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EP 1235610	A2	E		A61M-025/00	Based on patent WO 200141858
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200141858 A2

NOVELTY - The **catheter** comprises an elongated **catheter** body having delivery lumen (50) which extends from proximal end (21) to distal end (22) of the **catheter** body. It also contains a stylet lumen (70) containing stylet lumen proximal aperture (73) which is placed in proximal end of **catheter** body, configured to permit stylet to abut from distal to proximal end of stylet lumen.

DETAILED DESCRIPTION - The **catheter** comprises an elongated **catheter** body having delivery lumen (50) which extends from proximal end (21) to distal end (22) of the **catheter** body. It also contains a stylet lumen (70) containing stylet lumen proximal aperture (73) which is placed in proximal end of **catheter** body, configured to permit stylet to abut from distal to proximal end of stylet lumen.

The **catheter** body is made of nickel, titanium, silicon, **polyethylene**, ethylene vinyl acetate copolymer, **polyvinyl chloride**, polymethyl methacrylate, polyethyl methacrylate, polymethacrylate, ethylene glycol dimethacrylate, ethylene dimethacrylate, hydroxymethyl methacrylate, polyurethane, polyvinyl pyrrolidone, 2-pyrrolidone, **polyacrylonitrile** butadiene, polycarbonate, polyamides, fluoropolymers, **polystyrene**, styrene acrylonitrile homopolymer, styrene acrylonitrile copolymer, cellulose acetate, acrylonitrile butadiene styrene homopolymer, acrylonitrile butadiene styrene copolymer, **polyvinyl chloride**, silicone rubber, polymethylpentene, polysulfone, polyester, polyimide, polyisobutylene, **polymethylstyrene**, **polyvinyl chloride** elastomer, polyolefin homopolymeric elastomer, polyolefine copolymeric elastomer, urethane-based elastomer, silicone

elastomer, natural rubber or synthetic rubber.

INDEPENDENT CLAIMS are also included for the following:

- (a) a drug delivery system comprising the **catheter** ; and
- (b) a drug delivery method to treatment site of a subject.

USE - For delivering drug to treatment sites such as subcutaneous, percutaneous, intravenous, intrathecal, intramuscular, intra-arterial, intravascular, intraperitoneal, intraspinal, epidural, intracranial, intracardial, peritumoral or intratumoral within kidney, liver, pancreas, heart, lung, eye, ear, lymph node, breast, prostate, ovary, testicle, thyroid, spleen, central nervous system, skeletal muscle, bone, lymph vessel, artery, arteriole, capillary bed, blood vessel, vein, peripheral nervous system, digestive system, gastrointestinal tract, urinary bladder, gall bladder, adrenal gland, adipose tissue, parathyroid gland, uterus, fallopian **tube** , skin, tumorous growth, autologous graft, synthetic graft or site of microbial infection (all claimed).

ADVANTAGE - The **catheter** can be readily handled, **implanted** and cut to length that can be readily adapted for use in accurate, consistent and reliable delivery of **drug** at low volume rate e.g. micro liter or sub-micro liter quantities of liquid or semi-solid combination. The stylet provides stiffness necessary to guide the **catheter** into the site of treatment, without introducing a guide wire, prior to insert the **catheter** , thus the risk of tissue damage by the stylet is effectively reduced or eliminated. The distal end of the stylet lumen is close to the end of **catheter** body, hence the control over the direction of **catheter** body distal end is maintained.

The insertion of connector serves as a mechanical **barrier** to limit or prevent introduction of unwanted material such as microorganism, into the stylet lumen. Also prevents the leakage of fluid from subject's body. The **catheter** eliminates the need for a physician or other health care worker to effect the connection between **catheter** and delivery device.

DESCRIPTION OF DRAWING(S) - The figure shows sectional view of a **catheter** .

**Catheter** body proximal end (21)

**Catheter** body distal end (22)

Delivery lumen (50)

Stylet lumen (70)

Proximal aperture (73)

pp; 39 DwgNo 15, 16/23

Derwent Class: A96; B07; P34

International Patent Class (Main): A61M-025/00

International Patent Class (Additional): A61M-025/01

15/7/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013250994

WPI Acc No: 2000-422877/200036

**Implantable medical devices with controlled release delivery of bioactive agents comprising a base material, a composite layer of a bioactive agent and a polymer, and a barrier layer .**

Patent Assignee: SCIMED LIFE SYSTEMS INC (SCIM-N); BOSTON SCI LTD (BOST-N); BARRY J J (BARR-I); KAMATH K R (KAMA-I); NOTT S H (NOTT-I)

Inventor: BARRY J J; KAMATH K R; NOTT S H

Number of Countries: 091 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200032255	A1	20000608	WO 99US26887	A	19991112	200036 B
AU 200030999	A	20000619	AU 200030999	A	19991112	200044
EP 1135178	A1	20010926	EP 99964984	A	19991112	200157
			WO 99US26887	A	19991112	
US 6335029	B1	20020101	US 98143521	A	19980828	200207
			US 98204259	A	19981203	
US 20020054900	A1	20020509	US 98143521	A	19980828	200235
			US 98204259	A	19981203	
			US 20016889	A	20011210	
JP 2002531183	W	20020924	WO 99US26887	A	19991112	200278
			JP 2000584944	A	19991112	

Priority Applications (No Type Date): US 98204259 A 19981203; US 98143521 A 19980828; US 20016889 A 20011210

#### Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200032255	A1	E	39	A61L-029/08	
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Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200030999	A			A61L-029/08	Based on patent WO 200032255
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EP 1135178	A1	E		A61L-029/08	Based on patent WO 200032255
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

US 6335029	B1			A61K-009/00	CIP of application US 98143521
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US 20020054900	A1			A61M-031/00	CIP of application US 98143521
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Cont of application US 98204259

JP 2002531183	W		28	A61L-029/00	Based on patent WO 200032255
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Abstract (Basic): WO 200032255 A1

NOVELTY - Implantable medical devices with controlled release delivery of bioactive agents comprising a base material, a composite **layer** of a bioactive agent and a polymer, and a **barrier layer**.

DETAILED DESCRIPTION - An implantable medical device comprises:

(a) a structure consisting of a base material adapted for introduction into a patient;

(b) at least one composite **layer** comprising at least one bioactive agent and a polymer material applied to at least a portion of the outer surface of the base material; and

(c) at least one **barrier layer** positioned over the composite **layer** wherein the thickness of the **barrier layer** is adequate to provide controlled release of the bioactive agent(s) and wherein the **barrier layer** is formed in situ by a low energy plasma polymerization process of a monomer gas.

An INDEPENDENT CLAIM is also included for a method for the localized delivery of a drug agent to a target location within a body.

USE - The medical devices provide controlled, localized delivery of bioactive agents within the body to treat or prevent certain conditions or diseases e.g. to prevent abrupt closure and/or restenosis of a body portion such as a passage, lumen or blood vessel.

pp; 39 DwgNo 0/4

Derwent Class: A96; B07; D22; P31; P32; P34

International Patent Class (Main): A61K-009/00; A61L-029/00; A61L-029/08; A61M-031/00

International Patent Class (Additional): A61B-017/00; A61F-002/00;  
A61K-031/337; A61K-047/30; A61K-047/32; A61K-047/34; A61K-047/36;  
A61L-029/16; A61L-031/10; A61L-031/16; **A61M-025/00** ; A61P-035/00

15/7/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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008939336

WPI Acc No: 1992-066605/199209

**Expandable catheter - comprising a thermoplastic elastomeric hydrophilic polyurethane, with outer coating of a hydrophobic polymer**  
Patent Assignee: BECTON DICKINSON CO (BECT ); SUPERIOR HEALTH CARE GROUP INC (SUPE-N); SUPERIOR HEALTHCARE GROUP INC (SUPE-N); KENDALL CO (KEND )

Inventor: LAMBERT J M; RHODES D R; SOLOMON D D

Number of Countries: 019 Number of Patents: 013

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 472413	A	19920226	EP 91307675	A	19910821	199209 B
US 5102401	A	19920407	US 90570756	A	19900822	199217
AU 9177249	A	19920227				199218
CA 2043051	A	19920223	CA 2043051	A	19910522	199220
JP 4226670	A	19920817	JP 91179765	A	19910719	199239
EP 472413	A3	19921104	EP 91307675	A	19910821	199342
AU 642737	B	19931028	AU 9177249	A	19910522	199350
CA 2043051	C	19941122	CA 2043051	A	19910522	199502
JP 95096026	B2	19951018	JP 91179765	A	19910719	199546
KR 9405303	B1	19940616	KR 9114496	A	19910822	199613
EP 472413	B1	19960731	EP 91307675	A	19910821	199635
DE 69121146	E	19960905	DE 621146	A	19910821	199641
			EP 91307675	A	19910821	
ES 2092548	T3	19961201	EP 91307675	A	19910821	199704

Priority Applications (No Type Date): US 90570756 A 19900822

Cited Patents: NoSR.Pub; EP 328421; EP 341049; EP 404516; EP 404517; EP 439908; US 4781703; US 4798597; US 4838881; US 4846812

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 472413	A				
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Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE

US 5102401	A	11			
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JP 4226670	A	11	A61L-029/00		
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AU 642737	B		A61L-029/00	Previous Publ. patent AU 9177249	
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JP 95096026	B2	11	A61L-029/00	Based on patent JP 4226670	
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EP 472413	B1 E	14	A61L-029/00		
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Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DE 69121146	E		A61L-029/00	Based on patent EP 472413	
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ES 2092548	T3		A61L-029/00	Based on patent EP 472413	
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CA 2043051	A		A61M-029/04		
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CA 2043051	C		A61M-029/04		
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KR 9405303	B1		A61L-029/00		
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Abstract (Basic): EP 472413 A

Expandable **catheter** comprising (a) a substantially hydrophillic thermoplastic elastomeric polyurethane base tubing, the polyurethane having a hard sequent of 30-60% and comprises the reaction prod. of a diisocyanate, a polyglycol component comprising at least 50% polyethyleneoxide glycol and a chain extender; (b) a **coating** of a hydrophobic polyurethane on the outside surface of the tubing; and (c) a stripe contg. a radiopaque material in the base tubing and/or

**coating** ; the **catheter** when brought into contact with aq. liq., absorbing 50-150% of its wt. of the liq. and expanding such that its inside diameter increases 15-40%.

Pref. the **catheter** comprises (a) a substantially hydrophillic thermoplastic elastomeric base polyurethane tubing having a hard segment of 40-55% and comprising the reaction prod. of 4,4'-diphenylmethane diisocyanate, 1,4-butanediol, and polyethyleneoxide having MW of 6,000-12,000; (b) a **coating** of a hydrophobic polyurethane on the outside of the base tubing and comprising the reaction prod. of 4,4'-diphenylmethane diisocyanate, butanediol and polytetramethylene ether glycol; and (c) a stripe contg. a radiopaque material encapsulated by the base tubing and/or **coating** ; the **catheter** when brought into contact with the aq. liq, absorbing the liq. and expanding such that its inside dia. increases 25%.

USE/ADVANTAGE - **Catheters** for central venous, and partic. for peripheral **catheter** applications. The **catheter** has a small gauge for less painful insertion and expands to a larger gauge after insertion. The **catheter** remains stiff for the time required for insertion and placement to **prevent** binding, kinking or water **absorption** from the skin tissue, but **absorbs** water quickly for safety during advancement and positioning. It can be mfd using conventional extrusion equipment without any post forming steps. (13pp Dwg.No.1/19

Abstract (Equivalent): EP 472413 B

A expandable **catheter** comprising a substantially hydrophilic thermoplastic elastomeric polyurethane tubing, said polyurethane comprising the reaction product of a diisocyanate, **polyethylene** -oxide glycol and a chain extender, and a **coating** of a hydrophobic polymer on the outside surface thereof, said tubing expanding when brought into contact with an aqueous liquid.

Dwg.1/15

Abstract (Equivalent): US 5102401 A

Expandable **catheter** comprises a hydrophilic thermoplastic elastomeric polyurethane tubing, with a **coating** of hydrophobic polymer on its surface. Polyurethane is the reaction prod. of diisocyanate, **polyethylene** oxide glycol, and a chain extender.

**Catheter** expands when brought into contact with aq. liq., and opt. has multiple lumens. Pref. **catheter** includes of stripe contg. radiopaque material in base tubing and/or **coating** , antithrombogenic agent and/or antiinfective agent.

ADVANTAGE - For length of time required for insertion and placement to prevent binding, linking or water adsorption from skin tissue, but rapidly adsorbs water from blood and becomes soft for safety during advancement and positioning

Derwent Class: A25; A96; B07; P34

International Patent Class (Main): A61L-029/00; A61M-029/04

International Patent Class (Additional): A61M-005/00; **A61M-025/00**



*titles Only*

10/26, TI/1 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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015068639

WPI Acc No: 2003-129155/200312

Polymeric dental implant used in bore of extracted tooth, comprises artificial root comprising polymeric composition, and abutment having distal end anchored inside polymeric composition

10/26, TI/2 (Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

014518553

WPI Acc No: 2002-339256/200237

Biological component useful in medical applications such as a prosthetic implant comprises an artificial membrane and a substrate

15/26, TI/2 (Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

012325890

WPI Acc No: 1999-131997/199911

Use of laminate in production of barrier material to ethylene oxide gas - having polyolefin inner layer, polyester, polyolefin or polyamide outer layer and intermediate layer containing silicon oxide

15/26, TI/3 (Item 3 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

010999794

WPI Acc No: 1996-496743/199649

Dressing to protect implanted percutaneous device - is planar with bottom surface lip of moisture-reactive material partic. hydrocolloid and covered by mesh to assist removal

15/26, TI/5 (Item 5 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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003141839

WPI Acc No: 1981-02383D/198103

Catheter made of polymer permeable to carboxylic acid - present in the flowing soln. and released to provide antimicrobial barrier

File 348:EUROPEAN PATENTS 1978-2003/Feb W04

File 349:PCT FULLTEXT 1979-2002/UB=20030227,UT=20030220

Set	Items	Description
S1	37483	CATHETER? ? OR STENT? ? OR BALLOON? ?
S2	6235	DRUG? ? (S) IMPLANT?
S3	932345	HEATH? ? OR COVERING? ? OR COAT??? OR LAYER? ? OR JACKET? ? OR SLEEVE? ? OR SLEEVELET? ? OR CAP OR CAPS OR TUBE OR TUBES OR TUBULAR OR TUBELIKE OR TUBIFORM OR CYLIND? OR CASING? ?
S4	102770	ZERO()ABSORPTION OR BARRIER? ? OR PREVENT???(10N)(ABSORB??? OR ABSORPT??? OR DIFFUS??? OR PERMEAT??? OR IMBUE? ? OR IMBU- ING)
S5	140167	POLYACRYLATE? ? OR POLYACRYLONITRILE? ? OR POLYSTYRENE? ? - OR GELATIN? ? OR AMYLOSE? ? OR PARYLENE() (C OR D OR N)
S6	186494	POLYETHYLENE? ? OR POLYVINYL()CHLORIDE OR POLY()VINYL()CHL- ORIDE OR POLYTETRAFLUOROETHYLENE
S7	27326	SHEATH? ?
S8	501	S1(S) (S3 OR S7) (S) S4
S9	0	S2(S) S9
S10	19	S2(S) S8
S11	7	S5:S6(S) S10
S12	4409	S5:S6(S) (S3 OR S7) (10N) S4
S13	11	S8(S) S12 NOT S11

11/3,K/7 (Item 7 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00553251 \*\*Image available\*\*

**SAFE AND EFFECTIVE BIOFILM INHIBITORY COMPOUNDS AND HEALTH-RELATED USES THEREOF**

**COMPOSES SURS ET EFFICACES INHIBITEURS DE FILMS BIOLOGIQUES, ET UTILISATIONS DANS DES DOMAINES RELIES A LA SANTE**

Patent Applicant/Assignee:

PHYCOGEN INC,

Inventor(s):

ALBERTE Randall S,

ZIMMERMAN Richard C,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200016624 A1 20000330 (WO 0016624)

Application: WO 99US22235 19990923 (PCT/WO US9922235)

Priority Application: US 98159814 19980923

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE

ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT

LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT

UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD

RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF

CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 23467

Claim

... sodium starch glycolate); or wetting acrents (e.cr., sodium lauryl sulphate). The tablets may be **coated** by tD Z methods well known in the art. Liquid preparations for oral administration may...by providing a valve to deliver a metered amount.

Capsules and cartridges of e.g., **gelatin** for use in an inhaler or insufflator may be formulated containing a powder mix of...

...also be formulated as a depot preparation. Such long acting forinulations may be administered by **implantation** (for example subcutaneously or intramuscularly) or by intramuscular injection. Thus, for example, the compounds may...

...be by transmucosal or transdermal means. For transmucosal or transdermal administration, penetrants appropriate to the **barrier** to be pen-neated are used in the formulation. Such penetrants are generally known in...

...sustained release may be effected by use of a reservoir membrane (i.e. a two **layer coating** in which one laver contains the active agent and the other creates a membrane through...including scalpels, needles, scissors and other devices used in invasive surgical, therapeutic or diagnostic procedures; **implantable** medical devices, including artificial blood vessels, **catheters** and other devices for the removal or delivery of fluids to patients. artificial hearts, artificial kidneys, orthopedic pins, plates and **implants**; **catheters** and other **tubes** (including urological and biliary **tubes**, endotracheal **tubes**, penipherably insertable central venous **catheters**. dialysis **catheters**, long term tunneled central venous **catheters**, peripheral venous **catheters**, short term central venous **catheters**. arterial **catheters**, pulmonary **catheters**, Swan-Ganz **catheters**, unnary **catheters**, pen'toneal **catheters**), urinary devices (including long terrn urinary devices, tissue bonding urinary devices, artificial urinary sphincters, urinary dilators), shunts (including ventricular or arterio-venous shunts); prostheses (including breast **implants**, penile prostheses, vascular grafting prostheses, heart valves, artificial joints, artificial

larynxes, otological **implants** ), vascular **catheter** ports. wound drain **tubes** , hydrocephalus shunts, pacemakers and **implantable** defibrillators, and the like. Other examples will be readily apparent to practitioners in these arts...

...counter tops and fixtures in areas used for medical procedures or for preparing medical apparatus, **tubes** and canisters used in respiratory treatments, including the administration of oxygen, of solubilized **drugs** in nebulizers and of anesthetic agents. Also included are those surfaces intended as biological **barriers** to infectious organisms in medical settings, such as gloves, aprons and faceshields. Commonly used materials for biological **barriers** may be latex-based or non-latex based. Vinyl is commonly used as a material...

...23

SUBSTITUTE SHEET (RULE 26)

such surfaces can include those non-sterile external surfaces of **tubes** and other apparatus found in areas where blood or body fluids or other hazardous biomaterials...

...contact with liquids are particularly prone to biofilm formation. As an example, those reservoirs and **ltubes** used for delivering humidified oxygen to patients can bear biofilms inhabited by infectious agents... a core of a compound of the invention is surrounded by a porous membrane or **layer** , and also matrix devices in which the compound is distributed throughout an inert matrix. Materials...

...be used to form reservoirs or matrices include silicones, acrylates, methacrylates, vinyl compounds such as **polyvinyl chloride** , olefins such as **polyethylene** or polypropylene. fluoropolymers such as polytetrafluorethylene, and polyesters such as terephthalates. The diffusional systems may be molded into a film or other **layer** material which is then placed in adherent contact with the structure intended for underwater use...

...crystal. The skilled artisan will be aware of numerous materials suitable for use as microcapsule **coating** materials, including, but not limited to, organic polymers, hydrocolloids, lipids, fats, carbohydrates, waxes, metals, and inorganic oxides. Silicone polymers are the most preferred microcapsule **coating** material for treatment of surfaces. Microencapsulation techniques are well known in the art and are... shortened to control the rate of dissolution of the compound from a structure or a **coating** . Alternatively, additional functional groups can be added to the alkyl chain to further vary the...

13/3,K/5 (Item 3 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00825223 \*\*Image available\*\*

STENT MATRIX

MATRICE DE STENT

Patent Applicant/Assignee:

ANGIOMED GMBH & CO MEDIZINTECHNIK KG, Wachhausstrasse 6, 76227 Karlsruhe, DE, DE (Residence), DE (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

LOMBARDI Sylvie, Turmbergstrasse 2, 76227 Karlsruhe, DE, DE (Residence), FR (Nationality), (Designated only for: US)

Legal Representative:

FUCHSLE Klaus (agent), Hoffmann Eitle, Arabellastrasse 4, 81925 Munchen, DE,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200158384 A1 20010816 (WO 0158384)

Application: WO 2001EP1562 20010213 (PCT/WO EP0101562)  
Priority Application: GB 20003387 20000214  
Designated States: CA JP MX US  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
Publication Language: English  
Filing Language: English  
Fulltext Word Count: 8669  
Detailed Description

... reference numbers represent similar or identical structures throughout, Fig. 1 illustrates a preferred embodiment of **stent** graft which is particularly well-adapted for incorporation of the present invention. A partially encapsulated **stent** -graft 10 is created by **covering** the abluminal surface of a **stent** 12 with a biocompatible **barrier** material that is able to seal fistulae and aneurysms and prevent or reduce tissue ingrowth...  
...or tumour growth. In the preferred embodiment, the material used for this purpose is a **tubular layer** of expanded **polytetrafluoroethylene** ePTFE) 20. the preferred ePTFE is one optimised for bond strength as described in US patent 5,749,880. The **stent** 12 in the preferred embodiment is a shape memory alloy **stent** having enhanced flexibility, although **stents** of a variety of designs are usable with the current invention. Also, the **stent** 12 can be made out of any type of material besides shape memory alloy...

13/3,K/6 (Item 4 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT  
(c) 2003 WIPO/Univentio. All rts. reserv.  
00741730 \*\*Image available\*\*

**BIOCOMPATIBLE ENDOPROSTHESES**  
**ENDOPROTHESES BIOCOMPATIBLES**

Patent Applicant/Assignee:

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Patent Applicant/Inventor:

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GB, GB (Residence), GB (Nationality), (Designated only for: US )  
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GB (Residence), GB (Nationality), (Designated only for: US )  
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HUDSON John Overton, 1A Salcombe Drive, Glenfield, Leicester LE3 8AG, GB,  
GB (Residence), GB (Nationality), (Designated only for: US )

Legal Representative:

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Reading RG1 8EQ, GB

Patent and Priority Information (Country, Number, Date):

Patent: WO 200054822 A2 20000921 (WO 0054822)  
Application: WO 2000GB913 20000313 (PCT/WO GB0000913)  
Priority Application: GB 995759 19990313

Designated States: AU CA JP NO US

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Publication Language: English

Filing Language: English

Fulltext Word Count: 5084

Detailed Description

... endoprostheses was developed where the stent was covered by a continuous tubular element. This continuous **tubular** element is usually a woven or knitted textile fabric, placed on the outside of the **stent**. Alternately, the

continuous **tubular** element may be expanded **polytetrafluoroethylene** (PTFE). The 1 5 continuous **tubular** element is therefore trapped between the **stent** and the arterial wall. Such a continuous **tubular** element is designed to form a **barrier** to prevent tissue re-growth...

13/3,K/7 (Item 5 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00732755 \*\*Image available\*\*

**COVERED STENT WITH ENCAPSULATED ENDS**

**ENDOPROTHESE RECOUVERTE A EXTREMITES ENCAPSULEES**

Patent Applicant/Assignee:

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Inventor(s):

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Legal Representative:

WIGHT Todd W (agent), Morrison & Foerster, LLP, 755 Page Mill Road, Palo

Alto, CA 94304-1018, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200045742 A1 20000810 (WO 0045742)

Application: WO 2000US2885 20000202 (PCT/WO US0002885)

Priority Application: US 99118269 19990202; US 99430154 19991029

Designated States: CA JP MX

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Publication Language: English

Filing Language: English

Fulltext Word Count: 6166

Detailed Description

... structures throughout, Fig. I illustrates a preferred embodiment of the present invention. A partially encapsulated **stent** -graft 10 is created by **covering** the ablurninal surface of a **stent** 12 with a biocompatible **barrier** material that is able to seal fistulae and aneurysms and prevent or reduce tissue ingrowth...

...or tumor growth. In the preferred embodiment, the material used for this purpose is a **tubular layer** of expanded **polytetrafluoroethylene** (ePTFE) 20. The preferred ePTFE is one optimized for bond strength as described in U.S. Patent 5,749,880. The **stent** 12 in the preferred embodiment is a shape memory alloy **stent** having geometry enhancing the **stent** 's flexibility, although **stents** of a variety of designs are usable with the current invention because the inventive configuration minimizes the effect of the **covering** on **stent** flexibility. Also, the **stent** 12 can be made out of any type of material besides shape memory alloy...

13/3,K/8 (Item 6 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00576905

**STENT GRAFTS WITH BIOACTIVE COATINGS**

**PROTHESES ENDOVASCULAIRES A REVETEMENTS BIOACTIFS**

Patent Applicant/Assignee:

ANGIOTECH PHARMACEUTICALS INC,  
UNIVERSITY OF BRITISH COLUMBIA,  
MACHAN Lindsay S,  
JACKSON John K,  
HUNTER William L,

Inventor(s):

MACHAN Lindsay S,  
JACKSON John K,  
HUNTER William L,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200040278 A1 20000713 (WO 0040278)

Application: WO 99CA1237 19991230 (PCT/WO CA9901237)

Priority Application: US 98114731 19981231; US 99116726 19990120

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK

DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR

LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ

TM TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM

AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL

PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 12955

Detailed Description

... For example, in one embodiment of the invention the active agent of the  
**stent** graft (e.g., poly-l-lysine, fibronectin, or chitosan) is **coated**  
with a physical **barrier** .

Such **barriers** can include inert biodegradable materials such as  
gelatin, PLGA/MePEG film, PLA, or polyethylene glycol...

*Titles Only*

11/6/1 (Item 1 from file: 349)

00967068 \*\*Image available\*\*

INTEGRATIVE ASSAYS FOR MONITORING MOLECULAR ASSEMBLY EVENTS

Publication Year: 2002

11/6/2 (Item 2 from file: 349)

00934156 \*\*Image available\*\*

ENANTIOMERS OF UNSATURATED ALKYLPHOSPHONOLIPIDS AND USE AS  
ANTI-NEOPLASTICS

Publication Year: 2002

11/6/3 (Item 3 from file: 349)

00906284 \*\*Image available\*\*

COMPOSITIONS FOR TREATMENT OF MALIGNANT EFFUSIONS COMPRISING A  
BIOCOMPATIBLE POLYMER AND ANTINEOPLASTIC TAXANE

Publication Year: 2002

11/6/4 (Item 4 from file: 349)

00851891 \*\*Image available\*\*

BIORESORBABLE INFLATABLE DEVICES, INCISION TOOL AND METHODS FOR TISSUE  
EXPANSION AND TISSUE REGENERATION

Publication Year: 2001

11/6/5 (Item 5 from file: 349)

00761643 \*\*Image available\*\*

DEVICES AND COMPOUNDS FOR TREATING ARTERIAL RESTENOSIS

Publication Year: 2000

11/6/6 (Item 6 from file: 349)

00752565

COMPOSITION FOR NEURONAL REGENERATION COMPRISING MYELIN-SPECIFIC ANTIBODIES  
AND COMPLEMENT PROTEINS

Publication Year: 2000

13/6/1 (Item 1 from file: 348)

00797667

Co-extruded medical balloons and catheter using such balloons...

13/6/11 (Item 9 from file: 349)

00283666

BENIGN PROSTATIC HYPERPLASIA CATHETER WITH URETHRAL COOLING

Publication Year: 1995



File 350:Derwent WPIX 1963-2003/UD,UM &UP=200315

File 347:JAPIO Oct 1976-2002/Oct(Updated 030204)

File 371:French Patents 1961-2002/BOPI 200209

Set Items Description

S1 38853 CATHETER? ? OR STENT? ? OR BALLOON? ?

S2 4635411 SHEATH? ? OR COVERING? ? OR COAT??? OR LAYER? ? OR JACKET?  
? OR SLEEVE? ? OR SLEEVELET? ? OR CAP OR CAPS OR TUBE OR TUBES  
OR TUBULAR OR TUBELIKE OR CYLIND? OR CASING?

S3 158158 ZERO()ABSORPTION OR BARRIER? ? OR PREVENT??? (10N) (ABSORB???  
OR ABSORPT??? OR DIFFUS??? OR PERMEAT??? OR IMBUE? ? OR IMBU-  
ING)

S4 79623 DRUG? ?

S5 124745 IMPLANT?

S6 0 (EPOXY OR EPOXIES) AND BISPHENOL()A (5N)DIEPOXIDE? ? (5N)AM-  
INE()CURE

S7 755 POLYURETHANE AND GLASS()TRANSITION()TEMPERATURE?

S8 0 POLYURETHANE AND (NONPOLAR OR NON()POLAR)()SOFT()SEGMENT? ?  
AND (HYDROCARBON? ? OR SILICONE? ? OR FLUOROSILICONE? ?)

S9 174 CELLULOSE()ACETATE AND (DS OR DEGREE(2W)SUBSTITUTION)

S10 207 OXYGEN()TRANSMISSION(2N) (RATE OR RATES)

S11 350 (WATER() (VAPOR OR VAPOUR)()TRANSMISSION) (2N) (RATE OR RATES)

S12 14021 (EPOXY OR EPOXIES) AND BISPHENOL()A

S13 0 POLYURETHANE AND (NONPOLAR OR NON()POLAR)()SOFT()SEGMENT? ?

S14 11 S1 AND S2 AND S12

14/7/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
014849458  
WPI Acc No: 2002-670164/200272

**Photo-cationically polymerizable composition comprising cationically polymerizable compound and whitening agent, useful as material for preparation of coating material, varnish, adhesive, tackifier.**

Patent Assignee: SEKISUI CHEM IND CO LTD (SEKI )  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2002226709	A	20020814	JP 200120224	A	20010129	200272 B

Priority Applications (No Type Date): JP 200120224 A 20010129

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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JP 2002226709	A		5	C08L-101/00	
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Abstract (Basic): JP 2002226709 A

NOVELTY - A photo-cationically polymerizable composition(I) characterized by (1) comprising: (A) cationically polymerisable compound(s) and; (B) whitening agent(s), (2) to give films 100 micrometer in thickness with haize 60 % or more and UV-light(365 nm) permeability 30 % or more is new.

USE - (I) is useful as material for preparation of **coating** material, varnish, composite material matrix, adhesive, tackifier etc.

ADVANTAGE - (I) is cured by irradiation of 300-800 nm light(claimed). (I) gived films having high transparency and light transmittance.

pp; 5 DwgNo 0/0

Derwent Class: A81; A82; G02; G03

International Patent Class (Main): C08L-101/00

International Patent Class (Additional): C08K-003/00; C08K-005/00;  
C09J-011/04; C09J-201/00

14/7/3 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014029607 \*\*Image available\*\*  
WPI Acc No: 2001-513821/200156

**Coatings for implantable devices, e.g., stents , has primer region which acts as intermediary tie layer and reservoir region for containing active ingredients**

Patent Assignee: ADVANCED CARDIOVASCULAR SYSTEM (ADCA-N); BHAT V (BHAT-I); FONG K E (FONG-I); GURUWAIYA J A (GURU-I); HOSSAINY S F A (HOSS-I); MANDRUSOV E (MAND-I); MIRZAE D (MIRZ-I); PACETTI S D (PACE-I); SANDERS MILLARE D (MILL-I)

Inventor: BHAT V; FONG K E; GURUWAIYA J A; HOSSAINY S F A; MANDRUSOV E; MIRZAE D; PACETTI S D; SANDERS MILLARE D; BHAT V D; SANDERS-MILLARE D; FONG K; GURUWAIYA J; HOSSAINY S; PACETTI S

Number of Countries: 097 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010014717	A1	20010816	US 99470559	A	19991223	200156 B
			US 2000540241	A	20000331	
			US 2000715510	A	20001117	
			US 2000750595	A	20001228	
WO 200174415	A1	20011011	WO 2001US6914	A	20010302	200161

AU 200141974 A 20011015 AU 200141974 A 20010302 200209  
WO 200258753 A2 20020801 WO 2001US50398 A 20011221 200260  
Priority Applications (No Type Date): US 2000750595 A 20001228; US 99470559  
A 19991223; US 2000540241 A 20000331; US 2000715510 A 20001117

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20010014717	A1		39	C08F-116/06	CIP of application US 99470559
					CIP of application US 2000540241
					CIP of application US 2000715510

WO 200174415 A1 E A61L-027/54

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP  
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT  
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200141974 A A61L-027/54 Based on patent WO 200174415

WO 200258753 A2 E A61L-027/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ  
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20010014717 A1

NOVELTY - A **coating** (24) for an implantable device (20),  
comprises a primer region (26) on a portion of the device, and a  
reservoir region (28) containing an active ingredient on a selected  
portion of the primer. The reservoir region carries an active  
ingredient and the primer acts as an intermediary tie **layer** between  
the surface of the prosthesis and reservoir region.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(A) a prosthesis comprising a **coating** for delivery of an active  
ingredient; and

(B) a method of forming a **coating** for an implantable device  
comprising forming a primer on a portion of the device, and forming  
reservoir containing an active ingredient on a selected portion of the  
primer.

USE - As coatings (claimed) useful in implantable devices or in  
endoluminal prostheses, such as **stents** for treating heart diseases.

ADVANTAGE - The **coating** is susceptible to delivery and expansion  
with a prosthesis without significant detachment from the surface of  
the prosthesis. It allows for a significant control of the release of  
the therapeutic substance. It can also maintain the residence time of  
the substance at a predetermined concentration for an effective  
duration of time.

DESCRIPTION OF DRAWING(S) - The figure shows the inventive **coating**.

Implantable device (20)

**Coating** (24)

Primer region (26)

Reservoir region (28)

pp; 39 DwgNo 2a/7

Derwent Class: A96; D22; G02; P34

International Patent Class (Main): A61L-027/00; A61L-027/54; C08F-116/06

International Patent Class (Additional): A61L-027/34; A61L-029/08;

A61L-029/16; A61L-031/10; A61L-031/16

# TITLES ONLY

14/26, TI/2 (Item 2 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
014438930  
WPI Acc No: 2002-259633/200231  
Composition, used for flexible profile or tubing which can be cross-linked by moisture, comprises silane graft-copolymerized flexible polyolefin elastomers with specified additives

14/26, TI/4 (Item 4 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
011671773  
WPI Acc No: 1998-088682/199809  
Non-kinking, microbraided catheter guide wire - comprise a tubular super-elastic alloy braiding, which is bonded intermittently to a central core and has a polymeric cladding

14/26, TI/5 (Item 5 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
010257938  
WPI Acc No: 1995-159193/199521  
Adhesive sheet for reinforcing thin plate, for electrical appliances - obt'd. by laminating two thermosetting resin compsn. layers, with inorganic minute hollow material between both layers

14/26, TI/6 (Item 6 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
010032255  
WPI Acc No: 1994-299968/199437  
Moisture-curing compsn. for sealant and waterproofing agent avoiding bubbling - comprises cpd. contg. moisture-curing isocyanate gp. in molecule, as essential component, and polyglycidyl gp.-contg. cpd. e.g. novolak type polyepoxy cpd.

14/26, TI/7 (Item 7 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
008949837  
WPI Acc No: 1992-077106/199210  
Synergistic anticorrosive coating - prepd. by coating zinc-rich primer on metal prod., undercoating polyepoxy resin and top coating polyepoxy resin contg. hollow balloons

14/26, TI/8 (Item 8 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.  
007667709  
WPI Acc No: 1988-301641/198843  
Treating surface of polymer contg. antioxidant, before metallisation - with film of polyepoxy resin base, avoiding electric discharge treatment

14/26, TI/9 (Item 9 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

003450550

WPI Acc No: 1982-05057E/198203

Antistatic floor covering - comprises polyepoxy resin or unsatd polyester vehicle, aggregate, powdered copper and pigment

14/26, TI/10 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

(c) 2003 JPO & JAPIO. All rts. reserv.

04749100

COATING OF CAST-METAL ARTICLE FOR CUTTING

14/26, TI/11 (Item 2 from file: 347)

DIALOG(R) File 347: JAPIO

(c) 2003 JPO & JAPIO. All rts. reserv.

04627149

COATING COMPOSITION FOR REINFORCING STEEL SHEET

File 348:EUROPEAN PATENTS 1978-2003/Feb W04

File 349:PCT FULLTEXT 1979-2002/UB=20030227,UT=20030220

Set	Items	Description
S1	37483	CATHETER? ? OR STENT? ? OR BALLOON? ?
S2	934400	SHEATH? ? OR COVERING? ? OR COAT??? OR LAYER? ? OR JACKET? ? OR SLEEVE? ? OR SLEEVELET? ? OR CAP OR CAPS OR TUBE OR TUBES OR TUBULAR OR TUBELIKE OR CYLIND? OR CASING?
S3	102770	ZERO()ABSORPTION OR BARRIER? ? OR PREVENT??? (10N) (ABSORB??? OR ABSORPT??? OR DIFFUS??? OR PERMEAT??? OR IMBUE? ? OR IMBU- ING)
S4	108206	DRUG? ?
S5	72923	IMPLANT?
S6	1	(EPOXY OR EPOXIES) AND BISPHENOL()A (5N)DIEPOXIDE? ? (5N)AM- INE()CURE
S7	4537	POLYURETHANE AND GLASS()TRANSITION()TEMPERATURE?
S8	3	POLYURETHANE AND (NONPOLAR OR NON()POLAR)()SOFT()SEGMENT? ? AND (HYDROCARBON? ? OR SILICONE? ? OR FLUOROSILICONE? ?)
S9	1124	CELLULOSE()ACETATE AND (DS OR DEGREE(2W)SUBSTITUTION)
S10	648	OXYGEN()TRANSMISSION(2N) (RATE OR RATES)
S11	967	(WATER() (VAPOR OR VAPOUR)()TRANSMISSION) (2N) (RATE OR RATES)
S12	6156	(EPOXY OR EPOXIES) (10N)BISPHENOL
S13	2	POLYURETHANE (S) (NONPOLAR OR NON()POLAR)()SOFT()SEGMENT? ?
S14	12960	S1(10N)S2
S15	1118	S14(S)S4
S16	29	S15 AND S6:S13
S17	6	S15(S)S6:S13
S18	23	S16 NOT S17

17/3,K/1 (Item 1 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

(c) 2003 WIPO/Univentio. All rts. reserv.

00932351 \*\*Image available\*\*

**METHOD OF BALLOON CATHETER STENT DELIVERY SYSTEM WITH RIDGES**

**PROCEDE ASSOCIE A UN SYSTEME DE POSE D'ENDOPROTHESE A SONDE A BALLONNET  
COMPORTANT DES CRETES**

Patent Applicant/Assignee:

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(Residence), US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

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(Residence), US (Nationality), (Designated only for: US)

Legal Representative:

MONTGOMERY Michael W (agent), 14201 N.W. 60th Avenue, Miami Lakes, FL  
33014, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200266095 A2 20020829 (WO 0266095)

Application: WO 2002US4635 20020215 (PCT/WO US0204635)

Priority Application: US 2001269430 20010216

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO

RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 6031

Claim

... the coating is loaded with a drug. 21

. The method of Claim 2, wherein the **coating** has a **glass transition temperature**, and wherein the **balloon** in said step (e) is heated to a temperature greater than the coating **glass transition temperature**.

5 The method of Claim I wherein the balloon has a coating.

6 The method...

...stent pattern of features with the balloon ridges; and

0) crimping the stent around the **balloon**.

9 The method of Claim 8, wherein the **coating** has a **glass transition temperature**, and wherein the **balloon** in said step (e) is heated to a temperature greater than the coating **glass transition temperature**. 23

17/3,K/2 (Item 2 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00866418 \*\*Image available\*\*

**POLYMERIC STENTS AND OTHER SURGICAL ARTICLES**

**STENTS POLYMERES ET AUTRES ARTICLES CHIRURGICAUX**

Patent Applicant/Assignee:

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Patent Applicant/Inventor:

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(Nationality), (Designated only for: US)

Legal Representative:

JEREMY M BEN-DAVID & CO LTD (agent), Har Hotzvim Hi-Tech Park, P.O. Box  
45087, 91450 Jerusalem, IL,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200200092 A2-A3 20020103 (WO 0200092)  
Application: WO 2001IL579 20010626 (PCT/WO IL0100579)  
Priority Application: IL 137090 20000629

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU  
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP  
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD  
SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 6837

Detailed Description

... is formed from at least one biodegradable thermoplastic non-elastomeric polymer which has a **glass transition temperature** above 400C. In this type of embodiment, inflation of the angioplasty **balloon** encase in the helix and the hollow **cylinder** exerts outwards radial pressure on the circumference of both the helix and the hollow cylinder...

...non-elastomeric components. A two-part stent assembly of this type can be adapted for **drug** delivery from the outer surface and/or interstices of the hollow cylinder, and/or from...

Claim

... at least one elastomeric polymer and at least one non-elastomeric polymer which has a **glass transition temperature** above 400C;  
(f) it has a configuration selected from one of the following: (1) an...  
...a helix formed from at least one biodegradable thermoplastic non-elastomeric polymer which has a **glass transition temperature** above 400C; (4) an elongated hollow cylindrical configuration which is additionally corrugated, or has a...  
...configuration having a hole in the cylinder wall remote from either end of the elongated **cylinder**; (6) an elongated hollow **cylindrical** open-mesh configuration.  
4 A **stent** according to claim 3, wherein said block copolymer has a structure selected from (AB)n...

17/3,K/5 (Item 5 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

(c) 2003 WIPO/Univentio. All rts. reserv.

00746749 \*\*Image available\*\*

**FLUORINATED COPOLYMERS FOR COATING BIOMEDICAL DEVICES AND A PROCESS FOR THEIR MANUFACTURE**

**COPOLYMERES FLUORES POUR REVETEMENT DE DISPOSITIFS BIOMEDICAUX ET PROCEDE DE FABRICATION CORRESPONDANT**

Patent Applicant/Assignee:

UNIVERSITEIT GENT, St. Pietersnieuwstraat 25, B-9000 Gent, BE, BE  
(Residence), BE (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

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(Residence), BE (Nationality), (Designated only for: US)

VERWEIRE Ineke, Hulstbaan 72, B-9112 Sinaai, BE, BE (Residence), BE  
(Nationality), (Designated only for: US)



Legal Representative:

BIRD William E, Bird Goen & Co, Vilvoordsebaan 92, B-3020 Winksele, BE  
Patent and Priority Information (Country, Number, Date):

Patent: WO 200059963 A1 20001012 (WO 0059963)

Application: WO 2000EP2733 20000329 (PCT/WO EP0002733)

Priority Application: EP 99870063 19990331

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK  
DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ  
TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 13991

Detailed Description

... copolymer of example 3

3.17 p mole for silicon

1.83 p mole for **polyurethane**

These data indicate that the copolymer of example 3 provides a low  
encrustation value under...

...bacterial adhesiveness demonstrated in examples 20 and 21, makes this  
polymer a good candidate for **coating** urological **catheters** and **stents**.

EXAMPLE 23 - **drug** -loaded copolymer coatings obtained by dip- **coating** .

Methylprednisolon (MP) (Sigma Chemicals) and valsartan (VAL) (Ciba  
Geigy AG, Basel, Switzerland) were incorporated into...

17/3,K/6 (Item 6 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00365868

FLUOROLIGOMER SURFACE MODIFIERS FOR POLYMERS AND ARTICLES MADE THEREFROM  
MODIFICATEURS DE SURFACE OLIGOMERES FLUORES POUR DES POLYMERES ET ARTICLES  
REALISES A PARTIR DE CEUX-CI

Patent Applicant/Assignee:

SANTERRE Paul J,

Inventor(s):

SANTERRE Paul J,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9706195 A1 19970220

Application: WO 96CA524 19960731 (PCT/WO CA9600524)

Priority Application: US 951883 19950803

Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CU CZ DE DK EE ES FI  
GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO  
NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ  
UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC  
NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 15643

Detailed Description

... of polyurethane elastomers.

Example 15

Examples of biomedical articles that integrate the SMM to the  
**polyurethane** using aforesaid method 1) described above include the  
following articles that are in whole or in part made of **polyurethane**

components or contain some **polyurethane** components, namely, cardiac assist devices, cardiac replacement devices, cardiac septal patches, intra-aortic  
SUBSTITUTE SHEET...

- ...lens, cochlear ear implants, sutures, sewing rings, carmulas, contraceptives, syringes, o-rings, bladders, penile implants, **drug** delivery systems, drainage tubes, pacemaker leads insulators, heart valves, blood bags, coatings for implantable wires, catheters, vascular **stents**, angioplasty **balloons** and devices, bandages, heart massage cups, tracheal **tubes**, mammary implant coatings, artificial ducts, craniofacial and maxillofacial reconstruction applications, ligaments, fallopian tubes.  
Non-biomedical...
- ...systems, drainage tubes, pacemaker leads insulators, heart valves, blood bags, coatings for implantable wires, vascular **stents**, angioplasty **balloons** and devices, bandages, heart massage cups, tracheal **tubes**, mammary implant coatings, artificial ducts, craniofacial and maxillofacial reconstruction applications, ligaments. Specific examples of articles...
- ...group were prepared with 9 different SMM formulations dissolved in N, N-dimethylacetamide with the **polyurethane**, TDI/PCL/ED, and cast into the form of cast sheets and tubes. The flat...
- ...drainage tubes, pacemaker leads insulators, heart valves, blood bags, coatings for implantable wires, catheters, vascular **stents**, angioplasty **balloons** and devices, bandages, heart massage cups, tracheal **tubes**, mammary implant coatings, artificial ducts, craniofacial and maxillofacial reconstruction applications, ligaments, fallopian tubes...

18/3,K/2 (Item 2 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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00621988

Elastomeric medical device

Elastomerische medizinische Vorrichtung

Article medical elastomerique

PATENT ASSIGNEE:

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Scopelianos, Angelo G., 7 John Stevens Road, Whitehouse Station, NJ 08889  
, (US)

LEGAL REPRESENTATIVE:

Mercer, Christopher Paul et al (46611), Carpmiels & Ransford 43,  
Bloomsbury Square, London WC1A 2RA, (GB)

PATENT (CC, No, Kind, Date): EP 608139 A1 940727 (Basic)  
EP 608139 B1 000322

APPLICATION (CC, No, Date): EP 94300449 940120;

PRIORITY (CC, No, Date): US 7316 930121

DESIGNATED STATES: BE; DE; DK; ES; FR; GB; IE; IT; LU; NL; PT

INTERNATIONAL PATENT CLASS: A61L-017/00; A61L-031/00

ABSTRACT WORD COUNT: 92

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200012	360
CLAIMS B	(German)	200012	400

CLAIMS B	(French)	200012	430
SPEC B	(English)	200012	5319
Total word count - document A			0
Total word count - document B			6509
Total word count - documents A + B			6509

...SPECIFICATION the copolyester.

In addition to certain copolyesters which have elastomeric properties suitable for medical applications, **polyurethane** elastomers have also found acceptance within the medical community for numerous applications. This acceptance has...incorporation in blends for applications in devices needing improved hinge performance and toughness; films for **drug** delivery and adhesion prevention; gaskets; elastomeric coatings, and more specifically coatings for **stents**; elastomeric sealants; **sleeves** for anastomotic coupling devices; bioabsorbable vascular grafts; channels for nerve regeneration; wound dressings and adhesive strips; flexible meshes for numerous applications such as hernia repair; **tubes** for use as **catheters** and for the drainage of various body compartments and organs; plugs; tapes; pads; cords; contact...PCL)/polyglycolide(PGA) is found to be 44/56 by NMR. This copolymer has a **glass transition temperature** (Tg) of -11.9(degree)C, and melting point of 51.9(degree)C by...ratio of PCL/PGA is found to be 43.8/56.2 by NMR. The **glass transition temperature** (Tg) and the melting point (Tm) of this copolymer are found to be -10(degree)...

...ratio of PCL/PGA is found to be 41.7/58.3 by NMR. The **glass transition temperature** (Tg) and the melting point (Tm) of this copolymer are found to be -8(degree)...

...glycol (Example 1). This copolymer exhibits excellent elastomeric properties compared to commercial non-absorbable elastomeric **polyurethane** (Tecoflex(R)).

#### EXAMPLE 6

COPOLYMER OF (epsilon)-CAPROLACTONE/GLYCOLIDE AT 35/65 MOLE PERCENT

A...

...ratio of PCL/PGA is found to be 32.2/67.8 by NMR. The **glass transition temperatures** (Tg) and the melting point (Tm) of this copolymer are found to be 7(degree)...

...of polytrimethylenecarbonate(PTMC)/PGA is found to be 44.9/55.1 by NMR. The **glass transition temperature** (Tg) of this copolymer is found to be 17(degree)C by DSC.

The tensile...81 cm (1.5") X 0.15 cm (0.060") are used for the testing.

**Glass transition temperature** (Tg) and small strain (0.5%) modulus are obtained. The torsion modulus is converted to...

...ratio of PCL/PGA is found to be 39.3/60.7 by NMR. The **glass transition temperature** (Tg) and the melting point (Tm) of this copolymer are found to be 1(degree)...

...ratio of PCL/PGA is found to be 34.1/65.9 by NMR. The **glass transition temperature** (Tg) and the melting point (Tm) of this copolymer are found to be 0(degree)...

...PGA/PDS is found to be 38.5/56.2/5.4 by NMR. The **glass transition temperature** (Tg) and the melting point (Tm) of this copolymer are found to be -6(degree)...

18/3,K/3 (Item 3 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

(c) 2003 European Patent Office. All rts. reserv.

00381701

**MEDICAL DEVICES FABRICATED FROM HOMOPOLYMERS AND COPOLYMERS HAVING RECURRING CARBONATE UNITS.**

MEDIZINISCHE ANORDNUNGEN, HERGESTELLT AUS HOMO- UND KOPOLYMEREN MIT  
WIEDERKEHRENDER KARBONATEINHEITEN.  
DISPOSITIFS MEDICAUX FORMES D'HOMOPOLYMERES ET DE COPOLYMERES A UNITES  
REPETITIVES DE CARBONATE.

PATENT ASSIGNEE:

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CH;DE;FR;GB;IT;LI;SE)

INVENTOR:

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PATEL, Junda, Mahijibhai, 553 Roger Drive, Landing, NJ 07850, (US)  
TANG, Reginald, Ting-Hong, 5 Deerwood Trail, Warren, NJ 07060, (US)  
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LEGAL REPRESENTATIVE:

Ritter und Edler von Fischern, Bernhard, Dipl.-Ing. et al (9671),  
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München, (DE)

PATENT (CC, No, Kind, Date): EP 390860 A1 901010 (Basic)  
EP 390860 A1 910612  
EP 390860 B1 950412  
WO 8905664 890629

APPLICATION (CC, No, Date): EP 89901028 881216; WO 88US4483 881216

PRIORITY (CC, No, Date): US 134321 871217; US 134339 871217; US 134290  
871217; US 226706 880801; US 227386 880802

DESIGNATED STATES: CH; DE; FR; GB; IT; LI; SE

INTERNATIONAL PATENT CLASS: A61L-017/00; C08G-063/08; C08F-283/00;

NOTE: No A-document published by EPO

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPAB95	1153
CLAIMS B	(German)	EPAB95	1088
CLAIMS B	(French)	EPAB95	1197
SPEC B	(English)	EPAB95	18422

Total word count - document A 0

Total word count - document B 21860

Total word count - documents A + B 21860

...SPECIFICATION out of thermoplastics, such as extrusion, molding and  
solution casting, such as an extruded hollow **tubular** nerve channel or  
extruded hollow vascular graft, or a **stent** for use in angioplasty. The  
device may also be a composite device having a body...

...covering, dental repair, sponges, tracheolar replacements, hernia  
patches, absorbant swabs, fallopian tube and sperm ducts, **drug** delivery  
devices and the like.

The rate of bioresorption and/or biodegradation exhibited by the...of  
final polymer = 105,000. Differential scanning calorimetry (DSC) of the  
final polymer showed a **glass transition temperature** (Tg) of  
0(degree)C and a melting temperature (Tm) of 71(degree)C. (Sample...  
immediately. Tube inner diameters of 0.5 to 3mm were achieved.

Example 52

Biopolymer Coated **Polyurethane** Devices

ComfaDerm KM-1422-00 (obtained from Semex Medical, Malvern, PA, USA), a  
medical grade foamed, flexible **polyurethane** coated on one side with a  
pressure sensitive medical adhesive, was coated from the other...

...matter of minutes. Thorough drying for over 12 hrs afforded an evenly  
coated flexible foamed **polyurethane** based device.

Similarly, dimethylacetamide solution casted thin or thick films of **polyurethane**, e.g., Pellethane 2103-80AE and Pellethane X0119-70A (obtained from Upjohn Co.), were readily coated with a 4% DMSO biopolymer coating solution. Once the casted **polyurethane** film is casted, dried in an 120(degree)C oven, the DMSO coating solution was...

18/3,K/5 (Item 2 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00926242 \*\*Image available\*\*

**COATING FOR IMPLANTABLE DEVICES AND A METHOD OF FORMING THE SAME  
REVETEMENT POUR DISPOSITIFS IMPLANTABLES ET PROCEDE DE FABRICATION D'UN TEL  
REVETEMENT**

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200258753 A2-A3 20020801 (WO 0258753)

Application: WO 2001US50398 20011221 (PCT/WO US0150398)

Priority Application: US 2000750595 20001228

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD

SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 24811

Detailed Description

... a plied to the implantable device to a temperature greater than p 6  
about the **glass transition temperature** and less than about the  
melting temperature of the polymer.

In accordance with another embodiment...

...to the selected portion of the surface of the implantable device to a  
temperature above the **glass transition temperature** of the polymer.

In accordance with another embodiment, the act of forming the primer  
comprises... Representative examples of high content of hydrogen bonding  
group polymers include polyethylene-co-polyvinyl alcohol, **epoxy** polymers  
based on the diglycidylether of **bisphenol A** with amine crosslinking  
agents, **epoxy** polymers cured by polyols and lewis acid catalysts,  
**epoxy** phenolics, **epoxy** -polysulfides, ethylene vinyl acetate,  
rhelarnine f6rmaldehydes, . polyvinylalcohol-co-viiftyl acetatepolymers,

resorcinol-formaldehydes, urea-formaldehydes, polyvinylbutyral...

...polyphosphazenes and biomolecules such as fibrin, fibrinogen, cellulose, starch, Collagen and hyaluronic acid. Also, polyurethanes, **silicone** 's, and polyesters could be used and other polymers could also be used if they...

...acetate copolymers; polyamides, such as Nylon 66 and polycaprolactam; alkyd resins; polycarbonates; polyoxymethylenes; polyimides; polyethers; **epoxy** resins;

12 rayon; rayon-triacetate; cellulose, **cellulose acetate**, cellulose butyrate; **cellulose acetate** butyrate; cellophane; cellulose nitrate; cellulose propionate; cellulose ethers; and carboxymethyl cellulose. Ethylene vinyl alcohol is...dimethylformamide DMAC polycaprolactone chloroform n-butyl acetate benzophenone.

polyacrylate polyurethane ethyl acetate  
polyacrylated **polyurethane** ethyl acetate  
hydroxycyclohexyl  
phenyl ketone  
polyethyleneamine H2O  
methacrylic acid TBF  
copolymer  
ethylene vinylacetate methyl ethyl ketone  
(e...)

...polyamides, such as Nylon 66 10 and polycaprolactam; alkyd resins; polycarbonates; polyoxymethylenes; polyimides; polyethers; **epoxy** resins; rayon; rayon-triacetate; cellulose, **cellulose acetate**, cellulose butyrate; **cellulose acetate** butyrate; cellophane; cellulose nitrate; cellulose propionate; cellulose ethers; and carboxymethyl cellulose.

Ethylene vinyl alcohol is...alcohol (EVOH, e.g., having about 27 to about 47 mole percent of ethylene content), epoxies composed of **bisphenol A** based **diepoxides** with **amine cure**, aliphatic polyketones (e.g., CARELON available from Shell, and KETONEX available from British Petroleum), polysulfones...

...and the density can vary according to the supplier.

Representative polyurethanes include polyurethanes having a **glass transition temperature** above a storage or ambient temperature, for example having a **glass transition temperature** of at least 40° C to 60° C, or having a non-polar soft segment which includes a **hydrocarbon**, **silicone**, **fluorosilicone**, or mixtures thereof. For example, ELAST-EON, manufactured by Elastomedic/CSIRO Molecular Science, is a **polyurethane** with a **non-polar soft segment** which is made from 1,4-butanediol, 4,4'-methylenediphenyl diisocyanate, and a soft segment...

...and 80% by weight PDMS.

Representative examples of cellulose include, but are not limited to, **cellulose acetate** having a **degree of substitution (DS)** greater than about 0.8 or less than about 0.6, ethyl cellulose, cellulose nitrate, **cellulose acetate** butyrate, methyl

...composition should be exposed to a heat treatment at temperature range greater than about the **glass transition temperature (Tg)** and less than about the melting temperature (T<sub>m</sub>) of the selected polymer. Unexpected results...

...the aforementioned thermoset polymers, the use of initiators may be required. By way of example, **epoxy** systems consisting of 1,5-diglycidyl ether of **bisphenol A** resins can be cured with amine curatives, thermoset **polyurethane** prepolymers can be cured with polyols,

polyarnines, or water (moisture), and acrylated urethane can be cured... an EVOH reservoir layer; an EVOH primer and a reservoir layer of polycaprolactone; and an **epoxy** primer 20 consisting of the diglycidylether of **bisphenol A** cured with polyamine curatives with an EVOH reservoir layers. Other combinations can be derived...of the total weight of the solution. The solution is vortexed and placed in a **tube**. The cleaned Multi-Link<sup>TM</sup> **stents** are attached to mandrel wires and dipped into the solution. The **coated stents** are passed over a hot plate, for about 3-5 seconds, with 10 a temperature setting of about 60' C. The **coated stents** are cured for 6 hours in an air box then placed in a vacuum oven at 60' C for 24 hours. The single layered dexamethasone/EVOH **coated stents** are dipped into the 1:4 ratio EVOH:DMSO

solution, free from dexamethasone. The stents...

...will provide a 15 barrier layer for controlling the release of dexamethasone from the **drug coated layer**. The **coated stents** can be expanded on a 4.0 mm angioplasty **balloon**. It is predicted that the coatings will remain intact on the stents. The coatings will...stents is conducted for about 4 hours.

25

60

Example 21

A stainless steel **stent** can be spray **coated** with a formulation of EVOH

and a **drug**, as previously described in any of the above examples. A diffusion barrier composition...

...50 grams of tetrahydrofuran and 30 grams of dimethylformamide are admixed with the blend. The **stent**, having the EVOH **coating**, can be immersed in the diffusion 10 barrier composition to form a **layer**.

Example 22

A stainless steel **stent** can be spray **coated** with a formulation of EVOH and a **drug**, as previously described in any of the above examples. A diffusion barrier 15 formulation...

...barrier will reduce the rate at 20 which the drug is released from the **stent**.

Example 23

A stainless steel **stent** can be **coated** with a formulation of EVOH and a **drug**, as previously described in any of the above examples. A diffusion barrier formulation can be...

...a rotor stator mixer. With constant agitation, 30 grams of tetrahydrofuran can be added. The **stent** can be **coated** by immersion followed by centrifugation.

Examples 24

A **stent** can be **coated** with a formulation of EVOH and a **drug**, as previously described in any of the above examples. 8 grams of EVOH can be... of dimethyl sulfoxide and 10 grams of tetrahydrofuran are slowly added while stirring. The **stent** can be spray **coated**.

Example 25

A **stent** can be **coated** with a formulation of EVOH and a **drug**, as previously described in any of the above examples. Colloidal gold can be prepared by...

...solution of 20 77 grams of colloidal gold in 32 grams of tetrahydrofuran. The **stent** can be **coated** by a dip **coating** process.

Example 26

In vivo data is provided illustrating positive remodeling caused by the 2...in the convection oven for 15 minutes at 50'C.

ii. Weighed the **stents** and recorded measurements. If the **drug coat** weight matched the target weight, the **stents** were returned to the oven for 240 minutes. If weight gain did not match, the **stents** were returned to the glove box for additional spray **coat** application. Spray time on subsequent passes was adjusted to achieve target weight.

4. Wet Flow...

Claim

... the selected portion of the surface of the implantable device to a temperature above the **glass transition temperature** of the polymer.

8 The method of Claim 1, wherein the act of forming a...

...polymers containing hydrogen

bonding groups are selected from a group of polyethylene-co-polyvinyl alcohol,

**epoxy** polymers based on the diglycidylether of **bisphenol A** with amine crosslinking agents, **epoxy** polymers cured by polyols and lewis acid catalysts, 1 0 **epoxy** phenolics, **epoxy** -polysulfides, ethylene vinyl acetate, melamine formaldehydes, polyvinylalcohol-co-vipyl acetate polymers, resorcinolfortnaldehydes, urea-formaldehydes, polyvinylbutyral...

18/3,K/6 (Item 3 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00890489 \*\*Image available\*\*

DRUG DELIVERING PROSTHESES AND METHODS OF USE

PROTHESES D'ADMINISTRATION DE MEDICAMENTS ET PROCEDES D'UTILISATION

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200224247 A1 20020328 (WO 0224247)

Application: WO 2001US27073 20010830 (PCT/WO US0127073)

Priority Application: US 2000668319 20000922

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU

SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 19399

English Abstract



...covered stent having a framework of interconnected elongated members to the form of a hollow **tube** . The **stent** may be a coiled, slotted, self-expanding, etc., and may be metal or a polymer...  
...entire stent or only a portion of the stent and may include one or more **drugs** or other beneficial active agents and may have properties to prevent permanent occlusion of a...

#### Detailed Description

... incorporate drugs for release into the vessel. Finally, the polymer film may incorporate a lubricious **coating** on the outside to promote navigation of the covered **stent** into the desired location within the vessel.

United States Letters Patent No. 5,707,3...

...rate of restenosis.

United States Letters Patent No. 5,443,496 (Schwartz) describes a metal **stent** with a polymer film **covering** the **stent** . The intention of the covered **stent** is to seal dissections or perforations and reduce the rate of restenosis. The stent cover incorporates **drugs** for release into the vessel by attaching microcapsules of **drugs** to the stent cover.

United States Letters Patent No. 5,779,73 2 (Amundson) describes...

polymers are shown in the following Table 1.

Table 1: Non-resorbable Polymers

#### Polyurethane

Polytetrafluoroethylene (PTFE)

Expanded Polytetrafluoroethylene (ePTFE)

Polyethylene Terephthalate (Dacron)

Polypropylene

Resorbable polymers may also be used...Glycolide

Hexamethylbenzene

Lactide

Linseed oil

Lipids,

Liposomes

n-Butyryltri-n-hexyl citrate

Oil

Plithalic esters

#### Polyurethane

Stearic acid

Tributyl citrate

Triethyl citrate

Table 4: Nanoparticles

Silica

Clay

Metals

Aluminum Oxides

Ceramics...number of bonding methods including but not limited to heating the polymer above its Tg ( **glass transition temperature** ), a combination of heat and compression, heating the polymer while wrapping it in tension around...

...or lumen. The drugs can be incorporated into the cover material(s), applied as a **coating** to the cover material and/or **stent** , incorporated into microspheres or small particles, or any combination thereof.

In Figures 12a and 12b...

...22. One or more drugs can be incorporated into the cover material, and/or a **coating** on the cover material or **stent** . A combination of **drugs** and incorporation or application to the covered stent can result in the delivery of independent **drugs** to the vessel lumen and the vessel wall.

In Figure 12b, there is shown a...increase lubricity of the outside of the covered stent for smooth delivery of the covered **stent** into the vessel. The **coating** may increase lubricity, decrease thromoboginicity, decrease platelet deposition, or provide other advantages to the covered **stent** . The **coating** may also be used as a mechanical barrier to protect underlying cellular material which may...

...Hydrophilic polymer

Integrins

Paralyne

Phosphorylcholine

Phospholipids

Polyacrylamide

Polyanhydrides

Polyethylene acetate

Polyethylene glycol

Polyethylene oxide

Polypeptides

**Polyurethane**

Polyvinyl alcohol

Polyvinyl pyrrolidone

Silanes

Silicone

Consistent with the embodiments shown in Figures 12a and...polymer film, preferably between 0.0005in and 0.002in, heating the polymer film above its **glass** transition temperature and

18/3,K/7 (Item 4 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00882135 \*\*Image available\*\*

**COVERED STENTS, SYSTEMS FOR DEPLOYING COVERED STENTS**

**EXTENSEURS COUVERTS, SYSTEMES DE DEPLOIEMENT D'EXTENSEURS COUVERTS ET  
PROCEDES DE DEPLOIEMENT CORRESPONDANTS**

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200215824 A2-A3 20020228 (WO 0215824)

Application: WO 2001US26494 20010824 (PCT/WO US0126494)

Priority Application: US 2000645886 20000825

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU

SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 17382

#### English Abstract

...includes a stent of framework of interconnected elongated members in the form of a hollow **tube** having an inner surface and an outer surface. The **stent** may be a coiled **stent**, slotted **tube stent**, self-expanding **stent**, or any other intravascular **stent** design and may be metal or a polymer or a combination. A cover is disposed...  
...can be attached to the stent by wrapping a sheet of polymer material around the **stent**, or forming a **tube** of polymer material and mounting it over the **stent**. The cover can extend over the entire stent or only a portion of the stent and may include one or more **drugs** or other beneficial active agents for delivery into the body of the being.  
Moreover, the...

#### Detailed Description

... incorporate drugs for release into the vessel. Finally, the polymer film may incorporate a lubricious **coating** on the outside to promote navigation of the covered **stent** into the desired location within the vessel. 1 0 United States Letters Patent No. 5...  
...vessel with a balloon catheter. The polymer film may be resorbable or non-resorbable and **drugs** may be incorporated into the film for release in the vessel.  
United States Letters Patent...  
...rate of restenosis.  
United States Letters Patent No. 5,443,496 (Schwartz) describes a metal **stent** with a polymer film **covering** the **stent**. The intention of the covered **stent** is to seal dissections or perforations and reduce the rate of restenosis. The stent cover incorporates **drugs** for release into the vessel by attaching microcapsules of **drugs** to the stent cover.  
United States Letters Patent No. 5,779,732 (Amundson) describes a... nonresorbable polymers are shown in the following Table 1.

Table 1: Non-resorbable Polymer Examples

##### **Polyurethane**

Polytetrafluoroethylene (PTFE)

Expanded Polytetrafluoroethylene (ePTFE)

Polyethylene Teraphthalate (Dacron)

Polypropylene

Resorbable polymers may also be used...Bis methoxyethyl phthalate

acetoxytriethyl citrate

Glyceryl triacetate

ethyl benzoate

diethyl phthalate

dibutylphthalate

bis methoxyethyl phthalate

##### **Polyurethane**

Glycolide

Lactide

Camphor

benzoic acid hydroxyacetate

hexamethylbenzene

1,2-cyclohexadione

Ethyl-, butyl-, and hexyl-esters...number of bonding methods including but not limited to heating the polymer above its T<sub>g</sub> ( **glass transition temperature** ), a combination of heat and compression, heating the polymer while wrapping it in tension around...or lumen. The drugs can be

incorporated into the cover materials(s), applied as a **coating** to the cover material and/or **stent**, incorporated into microspheres or small particles, or any combination thereof.

In Figures 12a and 12b...

...22. One or more drugs can be incorporated into the cover material, and/or a **coating** on the cover material or **stent**. A combination of **drugs** and incorporation or application to the covered stent can result in the delivery of independent **drugs** to the vessel lumen and the vessel wall.

In Figure 12b, there is shown a...increase lubricity of the outside of the covered stent for smooth delivery of the covered **stent** into the vessel. The **coating** may increase lubricity, decrease thrombogenicity, decrease platelet deposition, or provide other advantages to the covered **stent**. The **coating** may also be used as a mechanical barrier to protect underlying cellular material which may...polymer film, preferably between 0.0005in and 0.002in, heating the polymer film above its **glass transition temperature** and wrapping the film around an unexpanded stent structure. This results in a very tightly...

18/3,K/11 (Item 8 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00558211 \*\*Image available\*\*

LOADING AND RELEASE OF WATER-INSOLUBLE DRUGS

CHARGEMENT ET LIBERATION DE MEDICAMENTS INSOLUBLES DANS L'EAU

Patent Applicant/Assignee:

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Inventor(s):

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PALASIS Maria,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200021584 A1 20000420 (WO 0021584)

Application: WO 99US23654 19991014 (PCT/WO US9923654)

Priority Application: US 98172026 19981014

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM

EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS

LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM

TR TT TZ UA UG UZ VN YU ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG

KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF

BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 12662

Fulltext Availability:

Detailed Description

Detailed Description

... embodiment of the present invention

features a catheter and method for delivering substantially water-insoluble **drug** agents to tissue at a desired location along body lumen walls. The catheter is constructed...

...of the expandable portion is defined by a polymer

is coating. Incorporated into the polymer **coating** is at least one substantially water-insoluble **drug**. The **catheter** is positioned to a desired target location within the body, whereupon the polymer coating absorbs water, thus dissolving the **drug** and resulting in the diffusion of the **drug** out of the polymer coating. The polymer and **drug** are selected to allow controlled release of a desired dosage of

the **drug** from the polymer.

Another particular embodiment of the present 4 invention features a stent for...

...water-insoluble drug agents to tissue at a desired location along body lumen walls. The **stent** is at least partially **coated** with a polymer **coating** having at least one substantially water-insoluble **drug** therein. The **stent** configuration, polymer and **drug** are selected to allow for the controlled release dosage and release rate of the **drug** from the polymer.

In a most preferred embodiment, the stent is a patterned stent for...

...qqGLj;uo UOOTT-eq p wO-TJ TGX'e-4TT:D-ed  
90 GTTjo-Td ; **Ds** -e;9T;9-T aq-4 moLls qE: pup PE: -sB-rd ST  
-pa;pGaq...vessel from which a diseased or otherwise damaged portion has been removed. In a typical **stent** graft, each end of the synthetic **tube** portion includes a **stent** that is affixed to each of the remaining ends of a blood vessel from which...target location. In the case of a balloon 13

catheter, the expandable portion of the **catheter** is subsequently expanded to bring the **drug** -impregnated polymer **coating** into contact with the lumen wall. The **drug** is released from the polymer as it slowly dissolves into the aqueous bodily fluids...

...or hydrophobic, and is selected from the group consisting of polycarboxylic acids, cellulosic polymers, including **cellulose acetate** and cellulose nitrate, gelatin, polyvinylpyrrolidone, cross-linked polyvinylpyrrolidone, polyanhydrides including maleic anhydride polymers, polyamides, polyvinyl...expandable portion optionally includes a stent, mountable in a body lumen by expansion thereof. The **catheter** also optionally comprises a **sheath** member which is extendable over the expandable portion to inhibit release of the **drug** into body fluids during placement of the catheter.

Referring now to Figs. 1a-1c, an...

...1 comprises a body 3 having a balloon 4 attached at its distal end. The **balloon** 4 on the **catheter** 3 includes a polymer **coating** 6. As shown in Fig. 1a, **drug** solution 8 is impregnated into the polymer **coating** with the **balloon** in its substantially deflated state prior to insertion into 23 the patient. As shown in...

...to the embodiment of the invention illustrated in Fig. 2, the balloon portion 4 of **catheter** 3 is optionally covered by a protective **sheath** 7 while the instrument 1 is inserted into a body lumen 2 and positioned at a treatment region. As the **coated balloon** 4 is positioned at occluded site 5, the protective **sheath** 7 is drawn back to expose the **balloon** 4. In an alternative embodiment, the **sheath** remains stationary while the **catheter** moves the **coated balloon** forward into the occluded region. The **sheath** 7 protects the **coating** and inhibits premature release of the **drug**. Such a sheath might be particularly advantageous when using **drugs** which are not sufficiently water-insoluble or if even minor delivery to tissue during catheter placement is a problem, e.g. for extremely toxic **drugs**.

Although Figs. 1 and 2 illustrate the application 25  
of the present invention to an...28

The inventors have surprisingly found that extended  
drug release of paclitaxel from a polymer **coating** on a  
patterned **stent** is obtained and consequently, a significant  
reduction in neointima formation results. The reduction in  
neointima...

- ...in accordance with the present invention is surprisingly  
superior to that obtained using a coiled **stent coated** with  
a polymer/paclitaxel matrix. Fig. 10 shows the release  
rate of paclitaxel obtained with...
  - ...with the present invention. In a preferred embodiment,  
paclitaxel is released from a polymer/paclitaxel **coated**  
**stent** for a time period of at least about 28 days after  
implantation of stent at the desired location within the  
body. The patterned **stent** is **coated** with an outer **coating**  
of polymer/paclitaxel such that the amount of paclitaxel is  
sufficient to prevent, decrease, eliminate...
  - ...agitated until the paclitaxel is completely dissolved. The solution is  
applied via pipet to a **balloon catheter** having a  
polyacrylic acid-based **coating** and inflated to 2 atm. A  
total of 100  $\mu$ l of solution, and hence 200...
  - ...DMSO) and phosphate buffered  
saline(PES) having a pH of 7.4 for in-vitro **drug** release.  
The cumulative amount of paclitaxel released from the  
catheter coating yields the data shown...of substantially water-insoluble  
drugs. The present invention provides, in one embodiment, a  
paclitaxel/polymer **coated stent** which has an extended  
release rate of from about 0.2 to about 7,  $\mu$ g...
  - ...28 days. In a preferred embodiment of the invention, there is provided  
a polymer/paclitaxel **coated non-coiled stent** which has an  
extended release rate of paclitaxel and which reduces  
neointima formation in injured...and  
a polymer coating on at least a portion of said  
expandable portion of said **catheter**, said polymer  
**coating** being impregnated with at least one  
substantially water-insoluble **drug** ...
27. The medical device of claim 26, wherein said  
expandable portion includes an inflatable...

18/3,K/16 (Item 13 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00430464 \*\*Image available\*\*

**ENDOPROSTHETIC DEVICE WITH THERAPEUTIC COMPOUND**

**DISPOSITIF ENDOPROTHETIQUE CONTENANT UN COMPOSE THERAPEUTIQUE**

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STERTZER Simon,

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9820928 A1 19980522

Application: WO 97US21824 19971113 (PCT/WO US9721824)

Priority Application: US 96751999 19961115

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK  
MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU  
ZW GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES  
FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD  
TG

Publication Language: English

Fulltext Word Count: 8901

Fulltext Availability:

Detailed Description

Detailed Description

... a framework for carrying the therapeutic compound. Numerous approaches have been proposed and, for metal **stents**, one proposed approach is to directly **coat** the **stent** wires with a polymer containing the therapeutic agent. This approach suffers from several problems including...  
...the amount of polymer that can be applied is limited. Hence, another disadvantage with polymer- **coated stents** for **drug** delivery is a limited capacity for carrying a **drug**.  
Another approach to providing delivery of a drug in combination with a **stent** has been to include a **sheath**, which encompasses the **stent** and contains the therapeutic agent. (Scott U.S. Patent No. 5,383,928; Martinez, U...formed, or to which it can be degraded. Exemplary condensation polymers include polyester, polyanhydride, polyamide, **polyurethane**, cellulose, polysiloxane. Radical chain, or addition polymers are those in which a loss of a...the strip is exposed to a stimulus, e.g., heated to or just above its **glass - transition temperature**, to soften the strip into a more flexible state. Where the strip is the structural...  
...to activate a polymer transition. For example, the polymer segments can be heated to their **glass transition temperature** or to their crystalline melting point.  
The heated strip segments are wound around a balloon...polymer stent, raising the temperature of the stent to its thermal transition, such as a **glass transition temperature** of between about 25-100'C, more preferably between 25-80'C, and most preferably...in its small-diameter, contracted state and in its expanded state after deployment in a **polyurethane** tubing. The optical density of the structural member was determined in its asreceived, small-diameter state and after depolyment in a **polyurethane** tubing. It was found that the image of the endoprosthetic device of Example 3C was...

18/3,K/20 (Item 17 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00319768

NOVEL POLYMER GEL NETWORKS AND METHODS OF USE

NOUVEAUX RESEAUX DE GEL POLYMERE ET PROCEDES D'UTILISATION

Patent Applicant/Assignee:

GEL SCIENCES INC,

Inventor(s):

SCHILLER Matthew E,  
GEHRKE Stevin Henry,  
LUPTON Elmer C,  
TANAKA Toyochi,  
YU Xiaohong,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9602276 A2 19960201

Application: WO 95US9815 19950718 (PCT/WO US9509815)

Priority Application: US 94276193 19940718; US 95413409 19950330  
Designated States: AU CA CN FI JP KR MX NO AT BE CH DE DK ES FR GB GR IE IT  
LU MC NL PT SE

Publication Language: English

Fulltext Word Count: 29257

Detailed Description

... a mass balance.

31 Cellulose ethers are advantageous for loading by this method. Because the **degree of substitution** of the anhydroglucose unit has a great effect on the degree of hydrophilicity, cellulose ethers...anti-protozoal compounds, anti-hypertensives, analgesics, anti-pyretics and anti-inflammatory agents such as NSAID **DS**, local anesthetics, ophthalmics, prostaglandins, anti-depressants, anti-psychotic substances, anti-emetics, imaging agents, specific targeting...potato starch; cellulose and its derivatives, such as methylcellulose, hydroxypropyl-methyl-cellulose, sodium carboxymethylcellulose, ethylcellulose, **cellulose acetate**; powdered tragacanth; malt; gelatin; talc; stearic acid; magnesium stearate; calcium sulfate; vegetable oils such as...in an aqueous solution, and is subsequently coated onto a porous support (e.g. **nitrocellulose acetate**, **cellulose acetate**, polyethylene, polypropylene, teflon, etc.) by, for example, casting, precipitation, or impregnation (see Figures 6 and...

...the final polymer gel network has an appropriate KATP. In particularly preferred embodiments of the **coated angioplasty balloon** of the present invention, the polyacid- **coated balloon** is contacted with a **drug** prior to being immersed in the PEG solution, so that the **drug** is loaded into the polyacid gel, and in subsequently trapped ...balloon breaks the PEG encapsulation, so that pores open in the polyacid gel, and the **drug** is released.

EXAMPLE 19: Bioadhesive Safe Polymer Gel Compositions

Bioadhesive safe polymer gel compositions of...

18/3,K/22 (Item 19 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00276922

A BALLOON CATHETER SYSTEM WITH DIFFUSING TIP

SYSTEME DE CATHETER BALLON POURVU D'UNE POINTE DE DIFFUSION

Patent Applicant/Assignee:

WAYNE STATE UNIVERSITY,

Inventor(s):

SPEARS James Richard,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9425098 A1 19941110

Application: WO 94US4093 19940413 (PCT/WO US9404093)

Priority Application: US 93368 19930423

Designated States: CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

Publication Language: English

Fulltext Word Count: 7320

Detailed Description

... The basic components of the system consist of a movable guidewire 36, the **balloon catheter** 10 with the diffusing tip 24, and a **sheath** 40 (Figure 1) which protects **drugs** or **drug** carrier(s) 38 trapped between the **sheath** 40 and surface of the deflated **balloon** 14 from premature dissolution prior to deployment. Figure 1



depicts the **sheath** 40 within which the laser **balloon catheter** 10 is temporarily placed. The **sheath** 40 prevents premature wash-out of the bioprotective material 38 applied to the surface of the **balloon** 14 before advancement of the **balloon** beyond the **sheath** 40 to the coronary segment of interest.

In practice, the sheath 40 is removed no...scattering, is placed over the etched long segment of the central channel 20. A suitable **epoxy** for both layers 30,,32 is a **bisphenol A** resin/polyamine curing agent combination, such as Envirotex Lite. The low absorption of 1...applied to the external surface of the inflatable balloon 14 in its deflated state. The **balloon catheter**, which will have already advanced through the **sheath** 40 (Figure 1), will then be withdrawn so that the deflated balloon with the **drug** or **drug** carrier is within the distal several centimeters of the **sheath** 40. Pressure within the **balloon** is then applied via the inflation and/or deflation channels 16,18, thereby trapping the **drug** or carrier between the external **balloon** surface and inner surface of the **sheath**.

During the practice of laser **balloon** angioplasty with local **drug** delivery, the deflated **balloon** along with the entrapped **drug** or carrier and **sheath** are advanced together within a guide **catheter** over a guidewire previously advanced across a lesion of interest.

When the operator is ready...

...balloon angioplasty, negative pressure is applied to the balloon, thereby allowing advancement of the **balloon** with the **drug** or carrier **coating** across the lesion. If the lesion is crossed and the **balloon** is inflated within approximately a minute after advancement beyond the **sheath**, blood-flow past the deflated **balloon** will wash only a portion of the **drug** or carrier away from the surface of the balloon.

In many instances, conventional balloon angioplasty...

18/3,K/23 (Item 20 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00195427 \*\*Image available\*\*

#### INTRALUMENAL DRUG ELUTING PROSTHESIS

#### PROTHESE POUR L'ELUTION INTRALUMINALE D'UN MEDICAMENT

Patent Applicant/Assignee:

MEDTRONIC INC,

Inventor(s):

WOLFF Rodney G,

HULL Vincent W,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9112779 A1 19910905

Application: WO 91US1097 19910219 (PCT/WO US9101097)

Priority Application: US 90580 19900228

Designated States: AT BE CA CH DE DK ES FR GB GR IT JP LU NL SE

Publication Language: English

Fulltext Word Count: 5112

Detailed Description

... required.

in all cases, the prostheses of the invention require the presence of an elutable **drug** compounded to the prosthesis itself. With conventional metal **stents**, the invention requires a **drug** -carrying **coating** overlying at least a portion of the metal.

The drugs in the prosthesis may be...It has also been observed that the phosphorous-carbon-oxygen plasticizing effect; which lowers the **glass transition temperature**, makes the-polymer desirable for fabrication.

30 The basic structure of polyphosphate ester monomer is...in layer 14.

The barrier coating 15 could be as simple as a silicone or **polyurethane**.

operation

The prosthesis is inserted into the lumen wherever needed as per the usual procedure...

*titles Only*

17/6/3 (Item 3 from file: 349)

00853437

ACYLATED CYCLODEXTRIN GUEST INCLUSION COMPLEXES

Publication Year: 2001

17/6/4 (Item 4 from file: 349)

00800978 \*\*Image available\*\*

METHODS FOR INHIBITING NEUROFIBROMATOSIS TYPE 1 (NF1)

Publication Year: 2001

18/6/1 (Item 1 from file: 348)

01147913

Shape-memory, biodegradable and absorbable material

18/6/4 (Item 1 from file: 349)

00935498

SYSTEMS DEVICES AND METHODS FOR INTRABODY TARGETED DELIVERY AND RELOADING  
OF THERAPEUTIC AGENTS

Publication Year: 2002

18/6/8 (Item 5 from file: 349)

00822792

DELIVERY SYSTEMS FOR TREATMENT OF RESTENOSIS AND ANASTOMOTIC INTIMAL  
HYPERPLASIA

Publication Year: 2001

18/6/9 (Item 6 from file: 349)

00775108

SHAPE MEMORY POLYURETHANE OR POLYURETHANE -UREA POLYMERS

Publication Year: 2001

18/6/10 (Item 7 from file: 349)

00739712

BIOABSORBABLE, BIOCOMPATIBLE POLYMERS FOR TISSUE ENGINEERING

Publication Year: 2000

18/6/12 (Item 9 from file: 349)

00528127 \*\*Image available\*\*

DEVICE FOR ENDOVASCULAR TREATMENT

Publication Year: 1999

18/6/13 (Item 10 from file: 349)

00515720

HYDROPHILIC POLYETHER POLYURETHANES CONTAINING CARBOXYLIC ACID

Publication Year: 1999

18/6/14 (Item 11 from file: 349)

00511176

SHAPE MEMORY POLYMERS

Publication Year: 1999

18/6/15 (Item 12 from file: 349)

00510795

BIODEGRADABLE SHAPE MEMORY POLYMERS

Publication Year: 1999

18/6/17 (Item 14 from file: 349)

00426868     \*\*Image available\*\*  
SILVER IMPLANTABLE MEDICAL DEVICE  
Publication Year: 1998

18/6/18       (Item 15 from file: 349)  
00364494     \*\*Image available\*\*  
NOVEL COMPOSITIONS AND DEVICES FOR CONTROLLED RELEASE OF ACTIVE INGREDIENTS  
Publication Year: 1997

18/6/19       (Item 16 from file: 349)  
00339602  
AN ANTIMICROBIAL MEDICAL DEVICE AND METHOD  
Publication Year: 1996

18/6/21       (Item 18 from file: 349)  
00302797  
COMPOSITIONS AND DEVICES FOR CONTROLLED RELEASE OF ACTIVE INGREDIENTS  
Publication Year: 1995